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ABSTRACT

This resource packet includes a teacher's guide, reproducible student activity sheets, a simulation game: "Life with the Incas", and a poster. The resource presents a cross-curricular thematic approach to the United Kingdom's National Curriculum. The materials look at the Andes and the Andean people, the Quechuan, who live in the Peruvian mountains. The presented activities are divided in three sections. In section one, students focus on the geology and geography of the Earth and focus in particular on the mountainous regions of the world. The second section examines the history of the Incas who ruled in South America from the 11th to the 15th century. The third section looks at the descendants of the Incas, the indigenous peoples, living in the Andes mountains today. In addition to background information and sequentially presented activities, the teacher's guide includes instructions for using the supplementary materials, teaching points and interdisciplinary extensions, and recommended resources. (MM)

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A MOUNTAIN CHILD

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AN ACTIVE LEARNING PACK FOR 9 - 13 YEAR OLDS

LYLE AND ROBERTS

A MOUNTAIN CHILD

GREENLIGHT PUBLICATIONS
1991

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The preparation of this teaching pack would not have been possible without the help and support of many people. A Mountain Child is the second of three publications to be produced during a three-year project called 'Humanity and the Environment' supported by the European Community Development Education Fund, Oxfam, Cafod and the Joseph Rowntree Charitable Trust. The first pack produced was, Forest Matters, Global Concerns and Environmental Perspectives aimed at the 14-18 age range. The final pack, 'A Mining Child' will be available at the end of 1991.

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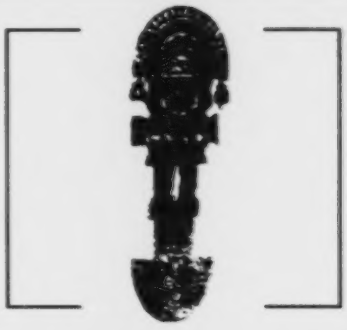
A MOUNTAIN CHILD

'A Mountain Child' is a cross-curricular thematic approach to the National Curriculum.
The pack is about the Andes and the Andean people of Peru who live in these mountains. Sometimes they are referred to as Quechuan because the language they speak is Quechua (pronounced ketchwa).

The activities are divided into three sections. In section one children study the geology and geography of the Earth and focus in particular on the mountainous regions of the world. This section gives the children a good understanding of physical features of the planet. It provides a good knowledge base to underpin an understanding of the people who live in mountains and their environment.

In the next section children learn about the history of the Incas who ruled in South America from the 11th to the 15th century. The Inca Empire began in the Cuzco Valley of the Andes Mountains in the country that is today called Peru. At the height of Inca power they ruled millions of people stretching from part of Northern Argentina up through Bolivia, Peru, Chile, Columbia and into Equador.



The !nca Empire came to an end in 1532 when the invading Spanish executed the Inca Emperor and began a period of Spanish rule, the effect of which still dominates the region today.
In this section we tell the story of the Inca Empire through a simulation. The children take on roles from Inca society and through the simulation find out about the life and times of the people. The year is 1525, the height of the Inca Empire, just before its defeat by the Spanish. The children learn about the arrival of the conquistadores by simulating a relay of messages. In this way they act out the Inca system of sending messages, which was done by using runners based at relay stations along the thousands of miles of roads the Incas built.
The children learn about the impact of the Spanish on South America. After the conquest, the land and people were controlled by Spaniards. Local Spanish administrators had the right to use the labour and produce of the indigenous population.
The administrators also had to make sure that they were instructed in the Catholic faith. The result was the impoverishment of the peasants and their numbers fell dramatically.

The combination of the conquest, the death by diseases and exploitation of the people meant that by 1581 the population had dropped by one third. The best recent investigations estimate that the people of the Americas had totalled more than 70 million when the conquistadors arrived; a century and a half later they had been reduced to 3.5 million. In 1685 only 4,000 indigenous families remained of the more than 2 million that had once lived between Lima and Paita.
This period of history is often referred to as the 'Journeys of Discovery'. The native peoples of the Americas are still referred to as 'Indians' because Christopher Columbus thought he had arrived in India. To speak of 'discovering' civilisations like the Incas is a European view of what was essentially an *invasion* and

subsequent oppression from which the 'Indian' people of the Americas have yet to free themselves. There was no 'finding' or 'discovery' of the Americas, there was an invasion and a covering up of the history of the people prior to the European conquest. Throughout this pack we refer to the native peoples as indigenous people.

In the centuries since the conquest metals have flowed from South American mines to Europe, mined by the indigenous population. In three centuries Potosi's Cerro Rico mine alone claimed eight million lives.

The people, including women and children, were taken from their agricultural communities to the Cerro. Of every ten that went only three returned. The Spaniards scoured the countryside for labour.

This replacement of a highly efficient agriculturally based society by a mining economy had an even more disastrous effect than that of the conquest. A corresponding disaster befell the land: on the Pacific coast, the Spaniards destroyed, or let die out, the enormous plantations of corn, yucca, kidney and white beans, peanuts and sweet potato; the desert quickly devoured great tracts of land which the Inca irrigation network had made abundant.

The Inca system of agricultural terraces was made possible by superb organisation, technical perfection and the wise use of labour which included the cultivation of the mountainsides. Exiled in their own land, the indigenous people were pushed into the poorest areas; the arid mountains and the middle of deserts, as the Europeans extended their ownership and control.

In the third section of the pack the children find out about the descendants of the Incas, the people who live in the mountains of Peru today. Through the use of the poster included in the pack the children find out about the lives of the people and how they are influenced by the environment and by their history.

The indigenous peoples of the altiplano are some of the poorest people in the world, they are part of an economic and social order which has left them at the bottom of the pile. Most of them rely on subsistence agriculture and in the harvesting season many of them are forced to leave the mountains to work as day labourers on plantations where they provide cheap labour harvesting cotton and sugar for export to Europe and North America. The best land along the coast is owned by US enterprises, it no longer grows food to feed the people of Peru, it grows cash crops which make the owners very rich while they pay hunger wages to the day labourers. Today many of the indigenous people of Peru are leaving the mountains for the city in the hope of a better life. In the pack children examine the reasons for this exodus and also find out about the lives of the people when they arrive in the capital, Lima.

The final activities in the pack focus on the year 1992, the quincentennial of the 'discovery' of the Americas. The governments of many countries in the Americas and Europe are planning to celebrate 'The Five Hundred Years Since the Discovery of America'. Children are asked to think about what the indigenous peoples of South America have to say about the proposed celebration.

'Five Hundred Years of Indian Resistance' is the title of a counter-programme inaugurated in Ecuador by the Confederation of Indigenous Nations (CONAIE).
They point out that in this way they want *"to claim before Ecuador, America and the world, our inalienable rights to self-determination, communal possession and recuperation of our ancestral territories, the preservation of our knowledge, practices and values within the context of a cultural dialogue and the management of our own education under a bilingual, communitarian modality".*

CONAIE believes that many of the traditions and the knowledge developed by indigenous peoples before the invasion and particularly its community practices, constitute a contribution to humanity which should be rescued and integrated in a global project for a new society:

"The solution of these problems, is not only the task of the indigenous peoples but also of the whole society. We are looking for a real and definitive alternative to our situation of oppression and exploitation. And this search is a contribution toward the new society which will be constructed jointly with other popular sectors of the country."

Their campaign presents itself then as *"a political response by the indigenous people to the 500 years of exploitation, colonialist and neo-colonialist oppression and to all the forms of ethno-cultural domination imposed historically by capitalism".*

The Fifth Centenary of the 'discovery' of America will serve as a time for reflection by people all over the world. The invasion of the Americas 500 years ago led to the exploitation and near-genocide of the indigenous peoples. Subsequently a political and economic system has been established which finances the development of Europe through the exploitation of the work force and the natural resources of the land. It is the metals - copper, silver and gold, and the plantation crops - sugar, cotton, cocoa, bananas and tobacco, taken from South America for five centuries which have made the Europeans rich. Even today the economies of South America are dominated by Europe and North America and the lives of the indigenous people are dominated by poverty and oppression.

We hope that teachers and children will enjoy using this pack. Children will learn a lot about the physical structure of the Earth and the geography of the mountain regions in particular as well as the history of some of the people. In studying the geography and history of the Andes and learning about the lives of the people they will explore some of the most important issues facing the world today. It is important that children who will be adults in the next century should understand the forces which have shaped the modern world, and find out about the lives of people who live on the other side of the Atlantic.

Our media presents us with images from the so-called 'third world' which distort our understanding of the people and places which do, after all, make up two thirds of the land mass and four fifths of the people living on our planet. The indigenous peoples of South America are usually presented as passive and pathetic victims of some terrible disaster or seen as living under military dictatorships threatened by violence and murder. The media rarely tell us why these people are experiencing such hardship and disasters. By studying the issues in this pack we hope children will have access to information about the past and present which will help them think about the future and in particular, about what sort of future they want. Tomorrow's decision makers need a more accurate picture of the world than the kaleidoscope of distorted images fed to them by the media and popular myth, we believe this pack will help provide that.

THE PACK

A Mountain Child is part of a series of active learning packs aimed at the 9-13 age range.

Other titles in the series include A Rainforest Child and An Arctic Child. In preparation is An Australian Child. All the packs are designed to develop active learning. Children are encouraged to explore ideas and discuss issues and so develop their understanding of the world in which we live. This involves developing a range of skills, exploring attitudes and values, and encourages collaborative learning.

This pack can be used in a variety of ways. We hope that teachers will use it as the basis for themework in primary or lower secondary schools. The strength of working thematically is that it allows teachers to build on the childrens' interests and experiences. We believe the theme of mountains will prove a useful framework for helping children understand some of the ways the world works and their relationship to it.

The materials have been piloted successfully in primary schools with upper juniors and in secondary schools with first year and second year pupils in their Humanities, History or Geography lessons.

The pack forms the basis of a half term or whole term's work and teachers using it will cover a wide range of curriculum areas which are described below and National Curriculum Attainment targets are detailed on pages 34 -39.

CURRICULUM AREAS COVERED

1

Children learn about the physical geography of a mountainous region and meet geography attainment targets.

2

Children learn about the history of the region, and meet history attainment targets.

3

Children learn about the environment of the region, its climate, vegetation, animals etc and meet science attainment targets.

4

Children learn about the people and their lives and how the geography, history and environment determines how they live. This thematic approach incorporates the cross-curricular themes of Economic Awareness, Environmental Education, Citizenship and Health.

5

Activities throughout are geared to English attainment targets.

6

In the pack are ideas for meeting technology attainment targets.

7

Co-operative and collaborative learning techniques are used throughout the pack: children usually work in pairs and small groups.

8

The pack takes a World Studies approach and supports enquiry-based learning.

9

The pack adopts an approach to learning about other people and places which could form a model to be adapted and used in other contexts.

CONTENTS

A TEACHERS' HANDBOOK

All of the activities included in the pack are described in this teachers' handbook. The book also contains background information for each topic and suggestions for extension work teachers can undertake. This take the form of practical science and technology activities, cooking and art work as well as information technology and media education. Teachers piloting the materials have found a range of resources which they have used with the children. These are listed at the back of this book.

AN ACTIVITY SHEETS BOOK

Activity sheets are included in a separate book. These sheets are copyright free. Some of the sheets need to be photocopied onto card to be used by groups of children in collaborative learning activities. The teachers' notes indicate when this should be done.

A SIMULATION GAME

The pack also contains a simulation game, "Life with the Incas" which is designed to be played with eight children.

A COLOUR POSTER

The full colour poster depicts the life, environment and people of the Andean mountains and forms the basis for investigating the lives of the Quechua people today.

THE HANDBOOK

There are various headings through the book which are explained below:

ACTIVITY (followed by a number)

Refers to activities described in the handbook which may be accompanied by activity sheets included in the accompanying book.

EXTENSION WORK

Suggestions for work to follow up and extend an activity or area of study.

TEACHING POINTS

These help pinpoint the specific learning we hope the children will gain from a particular activity.

TEACHERS' NOTES

Gives additional background information which we hope will prove useful to busy teachers.

SECTION ONE

PHYSICAL GEOGRAPHY AND GEOLOGY.

In this section children learn about the geology and geography of the Earth.
There are activities on continental drift, the structure of the Earth, plates and chains, mountains and volcanoes. This forms the background to further work on the world's mountains, their locations, sizes and features. Extension work on the different types of mountains, on earthquakes and volcanoes together give children a firm understanding of the geology and geography of mountains which forms an important background to later work which focuses on the Andean mountains and its people. The children piloting the pack became deeply engrossed in the subject and produced art and craft work to illustrate this colourful topic. This section meets National Curriculum attainment targets in Geography, Science and English.

MAP WORK

The first activity uses an outline map of the world. The one included in the pack uses the Eckert projection which has the advantage of being an equal area projection. Unfortunately all map projections distort in some ways and the Eckert projection results in New Zealand being slightly displaced and part of Antarctica and the Pacific Ocean are omitted.

ACTIVITY ONE

THE EARTH ON THE MOVE

PURPOSE

To teach children the names of the continents and oceans and their locations. To find and mark the Equator and tropics of Cancer and Capricorn.

To introduce children to continental drift. To understand that the continents we have today were at one time one large landmass.

MATERIALS

Activity Sheets 1A, an outline world map, one each; 1B and 1C, one between two. Six different colour pencils for each pair.

PROCEDURE

Children work individually and then in pairs.

1

Individually they should mark the Equator and the tropics of Cancer and Capricorn on their maps. The equator can be located by folding the paper so that the bottom edge touches the dotted line, and the tropics are then 3cm. above and below the equator.

2

With the aid of a large map of the world, and preferably a globe as well, teach them the names of the continents and oceans. For this purpose point out that there are only six landmasses, Europe and Asia should be referred to as Eurasia as they are one land mass - this will make the next stage easier. They should mark these on their maps.

3

Give out activity sheets 1B and 1C, one set between two.

Children follow the instructions on the activity sheet.

The information on the sheet should provide adequate background information for the teacher.

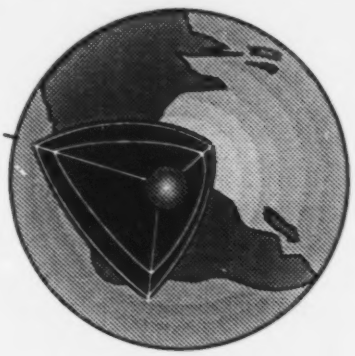
EXTENSION WORK

After the children have completed the activity they can make the different diagrams of the earth into a flick book so they can animate continental drift.

TEACHERS' NOTES

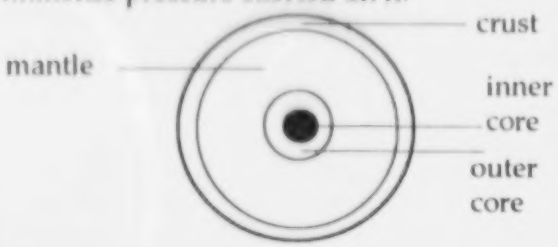
THE EARTH

Ever since it was formed the Earth has been changing, and is still changing. It is important for children to realise this and to begin to understand some of the processes involved.
The Earth was formed many millions of years ago (approximately 400 000 million years ago). It is believed that there was an enormous explosion and that the Earth came from the huge cloud of dust and gases that were left swirling in space after this 'big bang'. Somehow the dust and gases were drawn inwards. They formed a huge ball which glowed red hot. Later the surface of this ball cooled and hardened into the rocky ball we now call Earth.
As the surface cooled steam was released from the rocks and this formed clouds. As the air around the Earth cooled these clouds of steam cooled and produced rain. It rained and rained for thousands of years. The water filled the hollows on the rocky surface of the Earth and formed the oceans and seas.



INSIDE THE EARTH

The Earth is made up of layers. The outside is covered by a layer of rocks and soil. This is the part of the Earth we live on - it is known as the Earth's crust. The thickness of this crust varies, continental crust is thickest, usually about 70km thick, whilst the oceanic crust is usually about 40km (though sometimes as shallow as 6km.)
This wrinkled and cracked crust has cooled and become solid, but inside the Earth is still extremely hot and liquid. The deeper you go beneath the surface the hotter it becomes.
Under the crust there is a layer known as the mantle. This is composed of molten rock and behaves like liquid but is as dense as steel. Near the surface it has the consistency of thick treacle.
Beneath the mantle is the Earth's core which has two layers: an outer and an inner core, both of them a mixture of nickel and iron. The inner core is believed to be solid in spite of its temperature, because of the immense pressure exerted on it.



ACTIVITY 2

THE EARTH

PURPOSE

To enable the children to understand the structure of the Earth.

MATERIALS

Paper and three suitable templates as suggested below and/or compasses and pencils.

PROCEDURE

Children work individually.
The children should draw a picture of a section through the Earth like the one above, using the guidelines provided.

1
For younger children the teacher could supply a template of the outer circle. A suitable radius for the outer circle would be 7cm to fit onto a sheet of paper. Older children can draw the two outer circles using a compass.
2
For the outer core a suitable template might be found in the school or classroom eg. the top of a paper cup or the lid of a jam jar.
3
The inner core could be drawn using a 2 pence piece.
4
The diagram should be labelled:
Crust
Mantle
Outer core
Inner core
Remember that the crust is only a thin line around the edge, use a black felt pen to draw this.
Using colours such as red for the mantle and orange and yellow for inner and outer cores is a good idea, as it makes the diagram look bright and gives a feeling of the high temperatures.

RECOMMENDED RESOURCES

There are many good books for children about this topic, some of which are listed in the back of the handbook.

EXTENSION WORK MATHS

With older children there is opportunity to develop work on circles: the children could use a protractor or pins, pencils and string to draw the circumference.

EXTENSION WORK SCIENCE

Children can brainstorm in groups what the word temperature means to them. What can they think of that is very cold, warm, hot etc. They should draw a thermometer and label it with various temperatures eg body temperature, ice, boiling water and others. This will be a good background to looking at volcanoes in Activity four.

ACTIVITY 3

PLATES AND CHAINS

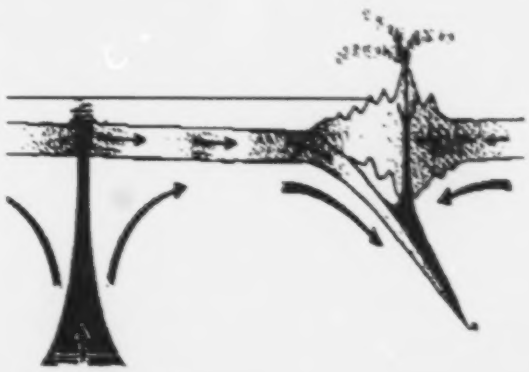
PURPOSE
For the children to see that the earth's crust is made up of plates rather like a jig-saw. To enable children to find out where the mountain regions of the world are and to see that they are located near the margins of the plates. (See teachers notes on plates)
MATERIALS
Activity Sheets 3A and 3B.
PROCEDURE
Children work in pairs.
Each pair has two maps - one pupil has 3A and the other 3B.
The object is for the partners to exchange map information so that both children finish up with complete maps.

FOLLOW UP WORK

This should be done if the children are to build up a good understanding of plates and chains.
Using a school atlas the children should look up the mountain chains and also find other mountain chains. They could find out where the larger volcanoes of the world are and draw them on their maps.

QUESTION TIME

What do the children notice about their maps?
Where are the active volcanoes found?
Why do they think this is so?



TEACHERS NOTES

Continental drift: this is the name given to the movement of the landmasses across the surface of the earth. The plates move in relation to each other and therefore continents move.

Plates: these are called tectonic plates and are the pieces from which the earth's crust is composed. There are many more than the ones shown in photocopy 3B, but the main ones are represented here. 'Tectonicus' the Greek word for builder - as movement of the plates is responsible for building the mountains as we will see in the next activity.

ACTIVITY 4

MOUNTAINS AND VOLCANOES.

PURPOSE

To help children understand the process of mountain building, and how mountains are formed at a plate margin, for example the Andes.

MATERIALS

Activity Sheet 4, one between two.

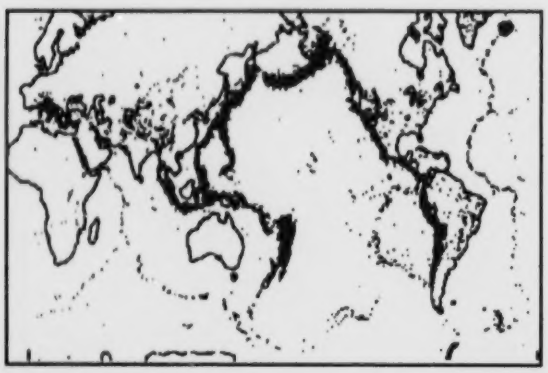
PROCEDURE

Children work in pairs.

Children cut up the paragraphs and match them to the appropriate part of the diagram. Then a diagram showing folding should be drawn

TEACHERS NOTES

Below is a map of the world with most of the volcanoes marked on it.



FOLD MOUNTAINS

The plates which make up the Earth's crust are constantly on the move, and sometimes these movements can build mountains. An oceanic plate and a continental plate may collide as in the case of the Andes. Mountains may also be formed between two colliding continents as in the case of the Himalayas.

EXTENSION WORK

GEOGRAPHY/SCIENCE

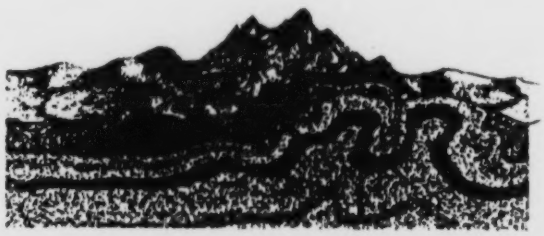
Here is a simple experiment to demonstrate the formation of fold mountains.

The children place four or five bits of coloured cloth scarves or handkerchiefs, preferably of different colours on top of each other on a very smooth surface. A heavy book is placed on each end of the pile. The books represent two continental plates. These are relatively rigid and thicker than the oceanic crust. The scarves represent the sedimentary deposits that have built up on the sea bed. Even though they are rock layers these are less rigid because they are newly formed and still contain sea water between the particles, which acts as a lubricant.

The children slowly slide the books towards each other. Ask them to stop at a quarter, half, three-quarters and fully closed stages and carefully draw what they see. Explain to them throughout what they are doing, make sure they are observing the whole time by asking them to note the shapes (or structures) that are formed. Ask questions afterwards such as:

Do the 'sedimentary deposits' on the ocean bed rise higher than the continents?

Mountains produced in this way are called fold mountains. The Rockies, The Andes, The Himalayas, The Alps and the Urals are all fold mountains.



BLOCK MOUNTAINS

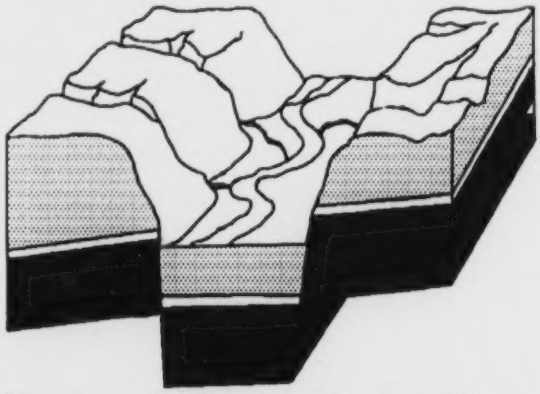
Some highland areas are formed as a result of the Earth's crust cracking and breaking along lines of weakness called faults. Where a series of faults occur some land may sink, leaving other parts standing high above them. These blocks of higher ground are called block mountains; many have flat tops and steep, relatively straight sides, although in the course of time erosion will make these features less obvious.

The land between two faults may sink and this forms a valley.

This type of valley is called a rift valley. In such places as the Rhine, the Vosges mountains in France and The Great Rift Valley in Eastern Africa you can see examples of such valleys.

EXTENSION WORK

UNDERSTANDING RIFT VALLEYS



The above diagram is a rift valley. When a rift valley is formed the land expands. Use the idea below to demonstrate how this expansion occurs.

Give each pair of children a strip of card marked with dotted lines and divided up as in the diagram below.

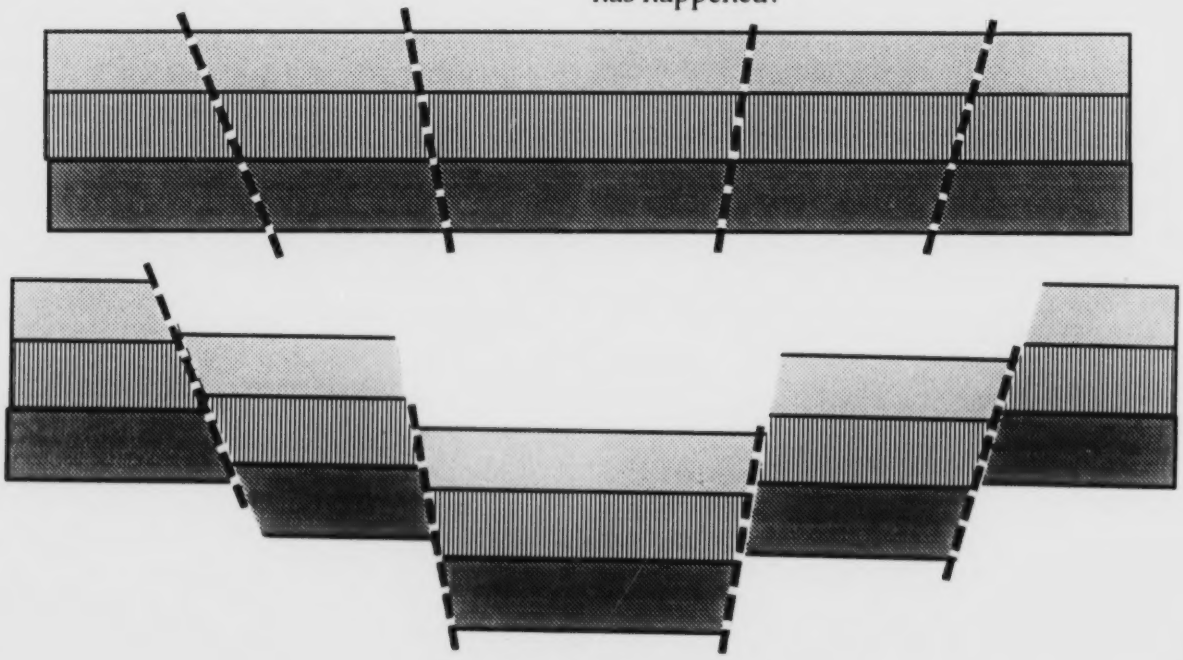
Ask the children to -

Measure the width of it.

Colour the different strips to represent the layers of the earth's crust.

Cut along the dotted lines and then to arrange the pieces to form a rift valley as in the last diagram.

Re-measure the width of the diagram, what has happened?



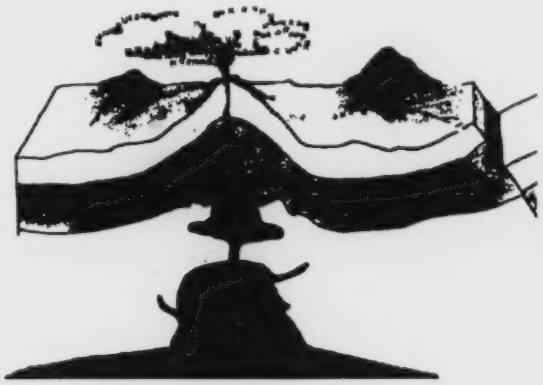
TEACHERS' NOTES

VOLCANIC MOUNTAINS

Volcanoes are holes or vents in the Earth's crust. Through these the molten rock (magma) and gases from the mantle deep inside the Earth are pushed out. The molten rock is called lava, and cools to form solid rock. When pure lava cools it forms a glassy black rock called obsidian. Gas, ash and bits of rock are also thrown up in the eruption. The rocks, ash and cooled lava make a mountain or cone around the vent, although volcanoes do not all have the same shape, in some the lava just seeps out gently from holes or cracks. At the top of a cone you may find a crater.

An active volcano is one that sometimes erupts. There are about 500 active volcanoes on land today, and more on the sea bed. There are 30-40 volcanic eruptions each year. Volcanoes which have not erupted for many years are called dormant volcanoes. Volcanoes that will never erupt again are extinct.

Edinburgh Castle in Scotland is built on an extinct volcano. There are many active volcanoes in Indonesia.



EXTENSION WORK - IT

The GRASS database has the world's volcanoes listed. Children can find out the names, locations, heights and status of all the world's volcanoes and print out graphs, for example, a pie chart showing percentages of volcanoes which are active, dormant and extinct or a bar chart showing heights of volcanoes.

EXTENSION WORK - GEOGRAPHY

Children imagine they are volcanologists travelling to visit a volcano in another part of the world. They can only get there by boat from Britain. They should use an atlas to chart their journey and write a log as they go. When they arrive at their destination they can imagine the volcano will erupt and describe it in two different ways:

i) from an eyewitness account and

ii) the news report following the eruption.

The following words can be given as a stimulus:

Shake, tremour, crater, lava, eruption, red bubble, magma, glowing, core,

Using new vocabulary and descriptive writing for different purposes will help the children get a sense of audience. An eyewitness writing in the first person will use a completely different style from the reporter although the vocabulary items they employ will be the same.

EARTHQUAKES

Earthquakes are also caused by movements of the Earth's plates. Sometimes the edge of one plate sticks against the edge of another plate. This puts great pressure and strain on the rocks and they may bend forming folds, or split forming faults. Sometimes this strain builds up, with no movement, folding or faulting occurring for a while, then suddenly the two plates jerk apart. This release causes the earth to shudder and shake.

Earthquakes remind us that movement sometimes happens in sudden leaps and bounds. The San Andreas fault in California is an active fault that causes many earthquakes. Here two plates are sliding past each other in opposite directions and the crust is tearing apart. You can see the effect of movement along the fault, where fences have been broken and roads pushed out of line. Over millions of years the total movement along the fault adds up to hundreds of kilometres.

EXTENSION WORK ART

The opportunities for art work are enormous and this is a very useful way of making sure children have understood the work. The work on MOUNTAINS AND VOLCANOES could be made into a picture for the classroom wall, or a model with the writing to accompany it placed under each part. Coloured tissue can be screwed up to 'erupt' from the volcano, use shiny paper to show heat inside the earth or use a battery and bulb..

SCHOOL TRIP

The Geology Section of the Natural History Museum has a wonderful exhibition covering all the topics included in this section including a room which simulates an earthquake and many examples of interactive video learning.

TEACHING POINTS

Children are introduced to many new words associated with physical geography. It would probably be helpful to devise ways of reinforcing the new vocabulary through devising word matching, splitting or joining activities, for example:

Earth	**tonic**
Pan	**quake**
Tect	**gea**

ACTIVITY 5

WHAT HAVE WE LEARNED SO FAR?

PURPOSE

To consolidate some of the factual knowledge the children have gained and to reinforce the new vocabulary learnt.

MATERIALS

Activity Sheet 5, one each.

PROCEDURE

Children work individually.
Children answer the questions and compete the word search.

TEACHERS NOTES

Here are some of the main points that should be covered. Answer to questions on Activity Sheet 5-

1

One of the ranges on their maps from activity 3, or if they can name another one.

2

The earth has an inner and an outer core. The inner one is very dense (nickel and iron), the outer one can act like a liquid,, both are very hot.

3

The earth's mantle is hot molten rock.

4

Plates (tectonic plates)

5

The continents are on the solid crust which 'floats' on the mantle beneath.

6

Mount Chogori (or Everest as it is more commonly known) in the Himalayas.
Today K2 - the peak adjacent to Chogori is thought to be a few metres higher.

7

Any peak over 700 metres will do.

8

Volcanoes are found near plate margins, in mountain ranges.

9

Pangea.

10

This is described in detail in the teachers notes.

WORD SEARCH ANSWERS

SOLID; ROCKS; CONTINENT; MOUNTAIN; VOLCANO; LIQUID; MANTLE; EARTHQUAKE; CORE; CRUST; FOLD; LAVA.

NB: The words may be found vertically, horizontally, diagonally and in reverse.

EXTENSION WORK LANGUAGE

The children might enjoy writing poems about the earth and volcanoes and mountains using the new vocabulary as a starting point.

ACTIVITY 6

MOUNTAIN REGIONS OF THE WORLD

PURPOSE

To learn some basic geography about the world.

To enable children to find out where the mountainous regions of the world are and learn something about the people who live in these regions.

MATERIALS

Activity sheet 1A, an outline map of the world, (use the same activity sheet as for Activity 1).

Activity Sheet 6, photocopied onto card and cut up into a set of mountain and direction cards.

Either chalk or string to mark out a large floor area to represent a world map.

PROCEDURE

Children work as a whole class.

Instructions follow below.

STAGE 1

Before beginning the activity as revision the children should mark on their map of the world the main continents and the Equator, tropics of Cancer and Capricorn and the main mountain areas.

STAGE 2

The children use string or chalk to mark out a world map and then ask eight members of the class to set up a human compass.

Give out the direction cards, establish where north is and ask the child who has the North card to stand in the appropriate place. Ask those with South, East and West to take their places, and finally those with NE, SE, NW and SW.

Give out the mountain cards and, with the help of a large world map make sure the children 'find' the right locations on the map.

The children standing in the same mountain areas should share their information.

STAGE 3

Children with direction cards will have two questions on their cards. When everyone is in place they should ask their questions beginning with the North. Children with mountain or country cards will have the answers to the questions on their cards.When the answer is given, move on to the next compass point, and so on until you have been around the compass twice and each compass point has asked two questions.

EXTENSION

Children can make a large map of the world to put on the classroom wall and transfer all this information onto it. As the pack progresses more and more information can be added to the map.

ACTIVITY 7

BRAINSTORMING

PURPOSE

To enable children to state what they know about the topic of mountains before learning any more.

MATERIALS

Scrap paper and a pen for each group.

PROCEDURE

Children work in groups of four.

Give each group some scrap paper and a pen. Ask one child in each group to act as scribe and ask them to brainstorm on whatever comes into their heads when they think of mountains. The child acting as scribe should write everything down ready to report back to the whole class.

After five minutes ask each group to report back and write down the ideas on the board. You should end up with a class list of ideas about mountains.

FOLLOW UP

Show the first part of the video, A Mountain Child from the Two-Way Ticket series which begins with children replying to the questions *"What do you think of when you think of mountains?"* Their replies are heard as the programme shows a series of visual images from mountain regions all over the world. After the video children should discuss whether what they saw and heard fitted in with their ideas or whether new ideas were introduced. Show the sequence again and ask them to make a note of how many of the mountain regions they put on their map are mentioned in the video.

ACTIVITY 8

THE WORLD'S MOUNTAINS

PURPOSE

For children to see where the world's highest mountains are, find out their heights and compare them with the highest mountains in the UK.

MATERIALS

Activity Sheet 8.

PROCEDURE

Students work individually or in pairs. From the information on the sheet they work out which diagram represents which mountain by using the grid reference. They should name the mountain.

VARIATION

Teachers might like to ask one group of children to write the names of the mountains on the sheet and then ask another to measure the height of each mountain by reading the scale. They could check to see how accurately they have measured by comparing their measurement with the height given.

EXTENSION WORK GEOGRAPHY

Look up these mountains in an Atlas - put them on a world map and add in some more. Look up the highest mountains in the UK and compare the heights with those on other continents. Refer back to activity 6.

MAKING A MODEL

Using papier maché children can build a map of the world showing the mountainous areas by building them up with papier maché.

EXTENSION WORK IT

CREATING A DATA BASE

Using the GRASS database children could begin to make their own database of the world's mountains. Starting with the mountains on this sheet they can decide how many fields they need and enter the information. As they do further research they can add more mountains to the database.

TEACHERS' NOTES

EROSION

Many millions of years ago the Highlands of Scotland were as tall as the Alps. Today they are much lower. The powerful forces of erosion are causing mountains everywhere to shrink. Atmosphere and weather cause erosion by water, ice, snow, sunshine and wind.

Water gets into cracks in the rocks, freezes, expands, and pushes against the rock causing more cracks to form. Pieces of rock break off and are swept away by rain and rivers and possibly wind.

Running water carries tonnes of rock particles away every day. You can see the

effects of erosion by rivers or the sea very clearly and quite dramatically in many places.

Sometimes rainwater, which is naturally slightly acidic can dissolve rocks such as limestone. Water also dissolves certain minerals in the rocks and this helps to break the rock down.

Very hot weather causes rocks to dry and crumble, and usually the wind will carry the grains away, sometimes sandblasting rocks into strange shapes. If the daytime temperature is high and the night temperature is very low a great deal of erosion will occur. These conditions occur in desert areas and spectacular examples of rocks eroded in this way are seen in the Arizona desert. During the day the rocks expand and all the moisture evaporates, and a sudden drop in temperature as the sun goes down causes the rocks to quickly contract. This causes the fabric of the rock to weaken and it will crack and crumble and be carried away by wind or water.

EXTENSION WORK SCIENCE

EXPERIMENTS

Many experiments can be done to investigate the effects of erosion and to demonstrate the processes at work:

1

Water expands when frozen.

Working in pairs or small groups the children should fill two plastic cups to the brim with water. One is placed in a freezer, the other somewhere in the classroom. Look at the cups after a day. The children will see that the ice has risen out over the top of the cup, it has a greater volume than the water.

2

A dramatic experiment is to fill a glass bottle with water, screw the cap on firmly, and put it in a box in a freezer. Next day the expanding ice will be seen to have broken the bottle. (The box, of course, is to contain the broken glass).

3

Different types of rocks could be placed in different places and the effects of the conditions and the speed of erosion could be observed and recorded. This will obviously take some weeks or months to show change. Rocks such as limestone, sandstone, a conglomerate or even bricks and lumps of cement could be used, but also include hard rocks such as granite or a hard mudstone. Place the rocks on saucers somewhere safe in the school playground. The children should observe which ones erode quickest if at all, how long it takes and how does the rock erode ie. does it crumble, crack, flake?

Some rocks could be placed in different places such as in water, or in a freezer.

ACTIVITY 9

MOUNTAIN BUILDING

PURPOSE

To enable children to learn some interesting facts about mountains through a game which develops their skills in English and geography as well as team work and collaborative skills.

MATERIALS

One of the Activity Sheets 9A, 9B, 9C and 9D for each group.

A different coloured pencil for each group.

Twelve strips of paper to write sentences on, for each group.

PROCEDURE

Ideally children work in four groups of four, however some groups could be repeated or from two to six children could work together. The instructions are below.

STAGE 1

Each group is given one of the work sheets and a coloured pencil.

The groups are named:

PLACES,
GEOLOGY
CLIMATE and
GEOGRAPHY

Before beginning the work each group can make a label for their table. Each sheet has four sentences about the topic each containing one of the key mountain words. They should find the four key words in their sentences and colour them in on their Mountain Building Sheet. Any words they cannot understand should be investigated and discussed. You will need to check as far as possible that the groups do understand their own words.

STAGE 2

a) Each group is given twelve strips of paper.

b) In the group children should work in pairs. Each pair takes a word from the mountain which is not coloured in and writes a sentence to show what it means.

c) Taking it in turns each pair takes their sentence and the mountain sheet round the other groups to find which group has their word.

When the right group is found, the visiting pair show the group their sentence. If the group feels the sentence is correctly used, the word on the pairs' mountain sheet can be coloured in.

d) When each pair returns to base the other pair can take their sentence out to be checked. The pair now at home choose another word and write another sentence.

d) There must always be one pair at each group's base to check the sentences of visiting pairs.

e) The game is over when every group has coloured in every word on their mountain sheet.

EXTENSION WORK SCIENCE

The metals of the world are almost all found in mountainous areas. Children can investigate the world's metals and where they are found. Experiments to discover the properties of metals can be carried out. Which metals are magnetic and which are not? Which metals corrode and which do not? What about the properties of each metal, softness/hardness, flexibility etc? What are the metals used for which reflect their properties?

SECTION TWO

HISTORY

In this section we find out about the history of the Andean region through role play and simulations about the Incas of South America. The first simulation is about the life of the Incas and is followed by a further simulation which explores the arrival of the Spanish in the Americas and the impact on the Incas. This section ends with a summary of what life was like for the people of South America before and after the arrival of the Spanish. There is enormous potential here for teachers to extend this section into a whole topic on the Incas. It is a subject rich and colourful and really exciting for the children.

PREPARATORY WORK

Before beginning the role play and simulation it may be helpful to do some time-line work with the children to help them appreciate how long ago this was. The simulation takes place in 1525.

TEACHERS NOTES

THE INCAS

Eight hundred years ago, the Incas lived in the Cuzco valley in the Andes mountains. They believed that the first Inca had been sent by his father Inti, the sun god, to found an empire.

The Incas built up their empire by conquest, and by the 1500s they ruled millions of people stretching from part of Northern Argentina up through Bolivia, Peru, Chile, Columbia and into Equador. Their empire was dazzling in its achievements: the architecture included temples built with more skill than the Egyptian pyramids.

They developed advanced medicine, as archaeological evidence in Lima museum proves. In the museum there are hundreds of skulls which have undergone complicated surgery by Inca surgeons.

The Incas also built thousands of miles of roads, developed complicated systems of terraced agriculture and produced stunning artefacts of silver and gold. The Inca Empire came to an end in 1532 with the execution of Inca Emperor Atahualpa by the invading Spanish.

Great though the achievements of the Incas were they had not invented gunpowder or the wheel and had no riding animals. When the Spanish appeared with horses the people were stunned, they had never before seen such large animals. When the Spanish riding on horseback fired their weapons they must have seemed magically powerful.

It was not the Spanish soldiers with their horses and guns which were the biggest enemies, it was bacteria and viruses which were introduced and the indigenous people died in huge numbers; their bodies had no resistance against the new diseases. The Spanish conquest shattered the Inca civilisation.

The following role play and the simulation game which follows will give the children a good idea of what life was like in Inca times at the height of the Empire's power. Activity 12 simulates the arrival of the Spanish Conquistadors and the defeat of the empire and Activity 13 sums up how life was before and after the Spanish arrived.

ACTIVITY 10

LIVING IN INCA TIMES

PURPOSE

This activity is the preparatory work before the children begin the simulation. The children get an overview of the structure of Inca society and some idea about the lives of the people in the society.

MATERIALS

Activity Sheet 10A, THE INCAS, one between two. Activity Sheet 10B, 10C, 10D and 10E. These are role play sheets, with enough roles for eight people to take part in the simulation at any one time. The simulation is included in the pack.

PROCEDURE

Students work initially in pairs and then in groups of eight.

STAGE 1

Give each pair a copy of Activity Sheet 10A and ask them to read it and complete the activity.

STAGE 2

Eight children work together and are given role cards, activity sheets 10B, 10C and 10D. After they have read their cards they complete the Jobs Checklist, Activity Sheet 10E.

Now they are ready to begin the simulation.

ACTIVITY 11

LIFE WITH THE INCAS

PURPOSE

The simulation is designed to help the children get an understanding of the way of life of the Inca people, how their society was structured, how they grew their food, the work they did and the leisure they enjoyed.

MATERIALS

The simulation, LIFE WITH THE INCAS. The simulation has an instruction sheet - Activity Sheet 11, a board and four sets of cards - two different season cards (green); chance cards (blue); question cards (yellow) and privilege cards (red). Cut up the cards and place them in the appropriate places on the board. You will need to provide a dice and a different coloured counter for each of the 8 children involved in the simulation. NB Make sure the seasons cards, which are numbered, are in the correct order.

PROCEDURE

One of the children or the teacher reads the instructions for the game. The simulation begins with the Emperor throwing the dice.

All instructions are on the instruction sheet.

EXTENSION WORK

There are a great many books available on the Incas and many of the pilot schools spent a long time on this topic exploring further such topics as architecture, metal working, clothing, farming and the structure of society. The topic lends itself to beautiful art and craft work making Inca patterns and artefacts. A list of recommended books appear at the back of this handbook.

ACTIVITY 12

THE SPANISH ARE COMING

PURPOSE

To help children understand the impact of the Spanish conquest on the Inca Empire.

MATERIALS

Message Cards, activity sheets 12A and 12B. Photocopy them onto card and cut them up. Activity sheet 12C, a map showing the route of the messengers and Pizzaro's journey, one between two.

PROCEDURE

Children work as a whole class. Instructions follow below.

Before beginning the activity set the scene by telling the children that there has been a civil war in the Empire following the death of Emperor Huayna Capac.

The Emperor had chosen one of his sons to become Emperor on his death and he should have taken over peacefully. However, one of his other sons also wanted to be Emperor and they have fought a terrible civil war which has left the empire weak and vulnerable.

After explaining this give out the map, Activity Sheet 12C, for the children to look at.

The year is 1532.

On the map the children should locate **Cuzco**, the capital of the Inca Empire and **Tumbez** on the coast where Pizzaro and his men arrived.

In the game the children will mark out the route between Tumbez and Cuzco with chairs and station themselves along the route.

Ask the children if they can remember what relay runners are from the simulation.

Explain that in this activity they are all going to pretend to be relay runners and station themselves along the route between the coast and the capital. In this way messages from Tumbez are passed from relay station to relay station until they reach the emperor in Cuzco.

To do this the children need to stand in a long line, separated by a reasonable distance. It is best carried out in the playground, on a sports field, or in a large hall.

In order to reduce confusion each relay station is marked by a chair for the relay runner or messenger.

The first chair should be marked with the name of **Tumbez**, then a chair marked **Cajamarca**, then **Cajabamba, Huamachuco, Huaylas, Huanuco, Bombon, Jauja and Cuzco.** (A good opportunity to practice Spanish pronunciation).

Other chairs should be put in between these places for the rest of the children to sit on.

1

The teacher reads the first card. It tells the children that the civil war between the two rival Incas is over.

2

Children take up their places on the chairs. NB. If you have a very big class it is best to do the game twice. Pilot schools found it worked well with up to 20 children but more than that and it got a bit chaotic.

3

Give message No.1 to the child standing at Tumbez. Tell the child to run to the next relay station and read the message to the next child and then run back to his place where he will be given card No.2. All the cards 'travel' round the relay stations until they arrive in Cuzco where they should be given back to the teacher.

4

Continue until after you have given out card 4 and card 1 has arrived at Cuzco. Then give out card 4A to the child standing at Cuzco. This card will travel the opposite way round until it reaches Tumbez when it should be given to the teacher.

5

After Message 4A has been given out give Messages 5, 6, 7, and 8 one at a time to the child at Tumbez. NB. Card 8 tells all the children between Tumbez and Cajamarca to move on to Cajamarca to get away from the invaders. Only those children move to Cajamarca, no others.

6

Give card 9 to the children at Cajamarca, they should now take it in turns to read the cards to the next relay messengers.

7

After card 9 has been sent on its way and is about half way round give out card 9B to the child at Cuzco. This card, like 4A will travel the opposite way until it reaches Cajamarca where it should be collected by the teacher.

8

As soon as Message 9B has got under way, messages 10 - 20, one at a time, can be given to the children standing at Tumbez. NB. On Card 19 children before Huaylas are asked to leave their station and move on to Huaylas. Other children should not move from their station.

9

After Card 20 has been given out you can give card 20C to the child at Cuzco. Then give out card 21 to the children at Huaylas.

10

Message 22 is the last card. After they have read this card at each station, the children should move on all together to the next station stopping to read the card and then move on until they get to Cuzco, the end of the game.

DE-BRIEFING

After all the messages have been given the children should be gathered together for a de-briefing. They should be reminded of what they thought it would be like living in Inca society and ask how they feel about what has happened to them now. Using the cards as a guide make sure the children have really understood all that happened.

Cards 1 -8 concentrate on the reaction the Incas had to the arrival of the Spanish from the sea with horses and weapons.

Cards 9 - 14 deal with the death of the Emperor and the seeming indestructibility of the Spanish. Remind the children at this point that the Inca empire was weak after the civil war.

Cards 15 - 22 deal with the effect of white men's diseases on the Incas; the treatment of the people; the devastating effects of the weapons; the Spanish obsession with gold; the destruction of Inca temples and religion and the enforcement of the Catholic faith on the people. The sense of the terrible disaster which has befallen the empire should be clear.

FOLLOW-UP WORK

WRITING A NEWSPAPER

After the de-briefing the children can prepare a newspaper about the impact of the Spanish on their country. Although Inca society had not invented writing, some sympathetic Spanish priests did write about the terrible impact the conquistadors had on the people. If you would prefer to be more authentic the children can pretend to be a group of Catholic priests acting like foreign correspondents and preparing newspaper items to send home.

USING THE VIDEO

The second part of the video 'A Mountain Child' shows the impact of the Spanish invasion of the Inca Empire. It is a good time to show it and discuss what happened to the people before completing the next activity. Stop the video just before Sarah Hobson introduces Oscar Galero, the Andean boy featured in this video.

TEACHERS' NOTES

After the Spanish conquest the land and people were controlled by Spaniards. The combination of the conquest, the death by diseases and exploitation of the people meant that by 1581 the population had dropped by one third.

MAKING A QUIYPU

The Inca quiypu can be recreated in the classroom. Ask the children to devise a system of knotting string or wool to represent numbers. Use numbers from their experience;

How many girls and how many boys are there in the class?

How many people in their family?

Pets? Miles from school? Seasons? etc.

Any relevant figures can be represented by a knotted string attached to a main cross piece as in the illustration below. The children can talk to each other to decode the quiypus.

ACTIVITY 13

LIFE BEFORE AND AFTER THE SPANISH

PURPOSE

To consolidate the work the children have done during the game and in the relay activity.

MATERIALS

Activity Sheet 13A, and 13B photocopied onto card and cut up, and Activity Sheet 13C, (instructions) one set for each group.

PROCEDURE

The children work in groups of four. They read the instruction sheet and complete the activity.

Quiypu

SECTION THREE

LIFE IN THE ANDES TODAY

In this section we find out about the lives of the people in Peru who have survived in the arid mountains of the altiplano. These people are the survivors of centuries of conquest and exploitation and are today still threatened by the demands of the 'developed' world. For this work we have developed a Culturegram in the form of a full colour poster which is included in the pack. The poster shows different aspects of the altiplano, the environment, work, and way of life of the people. Children begin by working out for themselves by 'reading' the poster what life is like in the altiplano. Activities which follow allow them to find out in more detail about the environment, work, and culture of the people today.

PREPARATORY WORK

This next activity depends on the children being able to 'read' photographs. If they have never had any practice in this skill it would be useful if they could do some work on it. There are some excellent photo-packs available to work with. We highly recommend 'Doorways' produced by Save-the-Children Fund and 'Working Now' and 'What is a Family?' produced by DEC, Birmingham. (see Recommended Resources)

ACTIVITY 14

CULTUREGRAM

PURPOSE

The children will be given the chance to 'read' the photographs on the poster and find out as much as possible about the Quechua Indians who live in the Andes of Peru and Bolivia.

MATERIALS

A piece of A3 blank paper and the poster.

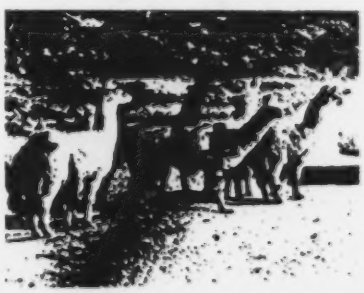
PROCEDURE

Children work in three groups of four to six. Each group will be given a topic to investigate, one will focus on work, another on environment and a third on history and culture. Detailed instructions follow.

Give each group a piece of A3 paper and ask them to draw lines dividing it into three. They should write the title of their group at the top of one of the sections they have drawn on the sheet. The sections are **the environment, work, history and culture.** Give out the poster, and ask each group in turn to brainstorm and find as much evidence as they can about their topic and write about it in their section. Allow about 30 minutes for this. Can they guess which mountain culture they are looking at?

When all three groups have finished they should see what the other groups have in their section. They should transfer this information to their own and make as many links between them as possible. For example, the group looking at the environment may have noted that llamas live in the mountains, and the work group may have noted that these are used as pack animals to transport the farmer's produce. They can draw a line connecting the two items.

When all three groups have conferred they can draw together all they have learned about the people and their way of life.



ACTIVITY 15

OSCAR OF PERU
A MOUNTAIN CHILD
THE VIDEO.

PURPOSE

The children will watch a video about a family who live in the Andes and see to what extent their lives have stayed the same as they were in Inca times and to what extent they have changed with the conquest.

MATERIALS

The video, 'Two-Way Ticket', Programme 1, MOUNTAINS. (see Recommended Resources)

PROCEDURE

Children view as a class and then work in groups. Instructions follow.

STAGE 1

The children should watch the video from where Oscar is introduced in the television studio.

STAGE 2

Divide the children into the groups they were in when they completed the poster activity and let them watch the video again. They should try and find out how much the way of life of Oscar and his family is similar to Inca times and in what ways it has been permanently changed by the Spanish conquest. One group will look at work, another environment and a third history and culture (this will include religious beliefs).

STAGE 3

After they have watched the video they should go back to the poster and see what information they can add to what they had already found out before they watched the video. They should be better able to identify the activities people are engaged in the pictures and write about their lives.

TEACHERS' NOTES

Activities 16-19 focus on the environment of the altiplano and the Andes mountains. They could be completed by the whole class or only by the group who studied the environment in the poster activity.

Activities 20-23 contain activities on work and leisure and way of life and could be completed by the work group who investigated this aspect of the poster, or, again by the whole class. As the children complete the activities they can add information to their sheets. The activities will help them understand what is going on in the pictures more clearly and form a better understanding of the lives of the people.

MAKING PAN PIPES

Pan pipes are instruments made from hollow wood, that have been made and played by the people of the Andes for thousands of years. They are played by blowing across the the open end of the pipe. Pipes can be made in the classroom using hollow plastic tubing approximately 1-3 cm diameter. Cut the tube into lengths ranging from 5-15cm. Seal one end with plasticine and tape the lengths of pipe firmly together. Can the children predict which pipe will play the highest or the lowest?

The longer pipe plays a lower note because the volume of air vibrates more slowly than the lesser volume in the shorter pipe.

TEACHERS' NOTES

PHYSICAL ENVIRONMENT
OF THE ANDES

The Central Andes Mountains rise abruptly between the Pacific Ocean and the Amazon Basin. The west coast of the mountains, cooled by the north-flowing Humboldt Current, is a desert with a sparse loma vegetation. In contrast, the eastern escarpment with its equatorial warmth and rainfall is tropical forest. Between, in the mountains and valleys is a patchwork of habitats ranging from the desert to the rainforest, and the coastal to the alpine.

ACTIVITY 16

TEMPERATURE CHARTS

PURPOSE

Children discover how much the temperature varies between night and day in the Andes, this is known as diurnal temperatures range.

The temperatures on the chart are for Cuzco which is 3,225 metres above sea level, 600 metres below the area where Oscar lives. The temperatures would be within 2 to 3 degrees.

MATERIALS

Activity Sheets 16A, night temperatures and 16B, dayt temperatures, one set between two and a coloured pencil each.

PROCEDURE

Children work in pairs.

Without letting their partners see their graphs the children take it in turns to read off the temperatures on their graphs to their partners, who plot these temperatures on their own sheets. Working alone the children then fill in the box chart from the information on their completed graphs. Some children may prefer to fill in the boxes first and then complete the graphs. NB. The children should use a different coloured pen to fill in their graphs to emphasise the contrast in temperatures at night and day in this part of the Andes.

TEACHING POINTS

What can the children learn from the graphs?

What do they notice about day time temperatures?

They should realise that temperatures within the tropics vary little throughout the year.

What do they notice about the night time temperatures?

Seasons are determined by night temperatures rather than day-time ones.

When do the children think the Andean summer is?

What about spring, autumn and winter?

This huge contrast is very different to our own experiences, ask the children to find out the differences in temperatures during night and day in Britain. (The evening weather forecast always gives these with regional variations).

Using the computer children can build a database of temperature variations in different parts of the UK.

What are the differences in temperature between night and day in summer and in winter in Britain?

Can they use the computer to design computer graphics to show the differences between regions?

TEACHERS' NOTES

DIURNAL TEMPERATURE RANGE

In the altiplano seasonal temperature variation is slight as in other tropical regions; however, diurnal temperature variation is significant.

Intense solar radiation through a thin atmosphere produces warm afternoon temperatures. Loss of heat at night, enhanced by low atmospheric density, low vapour pressure, and a general absence of clouds reduces night temperatures to freezing or below.

Frosts can occur at any time during the year, and in general are more likely the higher the atmosphere.

The major variables affecting the climate of the central Andes are firstly the geographic massiveness and high elevation of the mountains, interacting with large air masses,

and secondly, latitude interacting with altitude. Seasonal temperature changes are modest, but day and night temperature variation and the frequency of frosts are significant, and both increase with increasing altitudes.

TEMPERATURE

The mean temperature for the Andes as a whole drops 0.5 degrees for each 100m of elevation. Mean daily temperatures are nearly constant throughout the year with peak afternoon temperatures at about 17 degrees C. During the night there is rapid loss of this heat through a thin atmosphere which reduces temperatures to near freezing or below.

The strong daily cycle of temperature variation, in particular the nightly interruption of physiological processes of plants and the interruption of animal activities are significant for plant growth and animal survival.

ACTIVITY 17

THE RAIN CYCLE

PURPOSE

Children learn about the rainfall of the Andean region and the part mountains play in the water cycle.

MATERIALS

Activity Sheet 17, one between two.

PROCEDURE

The children read the text on the sheet and follow the instructions. Finally they label their diagram.

TEACHERS' NOTES

CLIMATE AND PRECIPITATION

The central Andes is located at the division of two major air masses in the tropics.

On the coast, subsiding air from the eastern edge of the South Pacific anticyclone, and the Humboldt current, which holds moisture in a cool sea-level inversion, act together to prevent storms.

These 2 factors are responsible for the desert-like conditions of this region.

In contrast, the eastern escarpment of the Andes is an area of year-round rainfall. Moist air from the South Atlantic anticyclone is blown over the mainland, and cools and expands as it ascends the lower slopes of the mountains. Its capacity to retain moisture is thus reduced, and rainfall results.

This same air, if it crosses the altiplano and moves down the western slopes of the Andes, has an opposite effect. Consequently precipitation is rare and these warm dry winds may actually increase dessication by evaporating moisture from plants and soil. The coastal desert then is an area of 'rainshadow' with regard to the Atlantic anticyclone.

The rains begin in September or October, reach a peak intensity in January or February and end in April.

Total annual precipitation averages 830mm on the northern region of the altiplano. Droughts are fairly common on the altiplano but rarely last more than 1 year.

Insufficient rainfall during the months critical to plant growth can produce the effects of a year-long drought.

The rain which arrives in the Andes has been generated by the rainforest of the Amazon basin. When the water comes in from the Atlantic over the Amazon it rains and typically, in a heavily forested area, one quarter of the water runs off and into a stream which feeds the Amazon and returns to the sea. Three quarters of it is returned to the atmosphere through evapo-transpiration. As the air mass moves west towards the Andes it just keeps recycling the water.

If the rainforest is cut down three quarters of the water will run off immediately into streams and back to the Atlantic and only one quarter is available for recycling.
The destruction of the rainforest could have very serious consequences for the Andes, where already sparce rainfall could become even less, making the growing of crops more difficult.
For an activity on the water cycle of the Amazon Basin see our pack, 'A Rainforest Child'.

ACTIVITY 18
VEGETATION ZONES

PURPOSE
To understand how climate, altitude and soil affects what can be grown on the different parts of the mountains in the Andes.
MATERIALS
Activity sheet 18
PROCEDURE
Children work in pairs.
Give out the sheet. The children should read about the different vegetation zones, and on the correct altitude level write the names of the different crops that can be grown there and the climatic conditions that prevail at each level.
The food plants can also be drawn onto the mountain

EXTENSION WORK ART
The children could produce a large mountain frieze with the crops and vegetation drawn onto it, and then the wildlife can be added later.

ACTIVITY 19
THE ANIMALS OF THE ANDES

PURPOSE
For children to learn more about the animals who live in the Andes, their adaptive characteristics, the food they eat and the threats facing them today.
MATERIALS
Activity sheets 19A and 19B, one set between two.
PROCEDURE
Explain the terms adaptation and threats to the children.
Children work in pairs.
Give out the sheets, children follow the instructions on the sheet.
Children should read the description of the animals on 19A and fill in the chart in note form on 19B.

TEACHERS NOTES
ADAPTATION
Adaption occurs in all living organisms, it can briefly be explained as the changing, over long periods of time, of a family of plants or animals to give them a better chance of survival as a species. Give the children some examples, such as fur growth in Arctic animals.

TEACHERS' NOTES

EFFECTS OF HUMAN GROUPS ON THE ENVIRONMENT

Deforestation, degradation of pastures and soil erosion are widespread in southern Peru. The depression of the antiplano tree lines, from a natural climax of 4,600 metres to the current, 'artificially low' 4,000 metres has been caused by overgrazing. The system of terracing of mountain sides checked slope erosion following the removal of ancient forests. In recent times, shrubs and other woody vegetation have been removed from large, now eroded areas to provide fuel for population centres and the railroad.

Post-conquest overgrazing by sheep has led to soil erosion and invasion of weedy species, and the dominance of coarse and unpalatable bunch grasses might have resulted in part from the sheep's heavy utilisation of more succulent plants.

DOMESTIC ANIMALS

Some non-native species are now common in the area. The dog functions as a protector against crop thievery or animal loss and assists in herding. The cat reduces the immediate rodent population and thus protects the stored grains.

The guinea pig, descended from the Brasilian cavy and kept by the Incas, is used as a ceremonial food resource, as well as a food reserve. They are fed on scraps and do not compete for human food resources.

Domestic herbivores have been placed in the ecological niche formerly occupied by the vicuna, guanaco, and deer. Replacement herbivores are the Alpaca and llama, sheep, cow and horse.

EXTENSION WORK ART

If the children have been producing work for classroom displays, they can add the animals to the appropriate places on the mountains.

ACTIVITY 20

FARMING ON THE ALTIPLANO

PURPOSE

To enable children to understand the farming year and the different activities which take place.

MATERIALS

Activity Sheets 20A and 20B.

PROCEDURE

Children work in pairs.

Give each pair a set of photocopy masters. They should first of all cut up and match the statements to the pictures and then cut up the pictures and put them in an appropriate order to illustrate the farming year.

ACTIVITY 21

WHO DOES WHAT?

PURPOSE

To find out the jobs each member of the family is responsible for in order to make the farming a success.

MATERIALS

Activity Sheets 21A, 21B, 21C, 21D, 21E and 21F Whose Job?

PROCEDURE

Give out the role descriptions to the children. Each child has a role of either a man, woman, girl or one of the two boys. When they have finished their reading they work as a group and fill in activity sheet 21F Whose Job?

FOLLOW UP WORK

GENDER ISSUES

In 'Making Global Connections' (See recommended resources) Miriam Steiner has written a chapter on gender issues. There are some excellent activities on looking at work and who does what jobs in the home which could be used as a follow-up to this activity.

EXTENSION WORK TECHNOLOGY

WEAVING and SPINNING

This is a good opportunity for children to spin wool, weave cloth and perhaps make dyes to colour the wool/cloth.

TEACHERS' NOTES

The next activity is about potatoes.
Potatoes were introduced to Europe from South America. They were first grown in the high plain of the altiplano in Peru and Bolivia.

The Quechua speaking people call it 'papa'. When the Spanish invaded this area they took the first potatoes back to Europe. They also took the Quechua word 'papa' and changed it to 'patata'. The English word 'potato' is linked to both the Spanish and Quechua words. Farmers in the Andes started cultivating potatoes as long ago as 3000BC.

Potatoes were unknown to the rest of the world until Spanish sailors brought them back in the 16th Century. However nobody liked them and couldn't believe that you ate the underground part of the plant. Some ate the leaves and became ill because the leaves contain a poisonous substance called solanine. It wasn't until about 200 years ago they started becoming popular with people, before then they were only eaten by the very poor or by animals.

Potatoes belong to the same plant family as tomatoes, aubergines, peppers, tobacco and deadly nightshade. The edible part of the plant is the underground tuber. There are many different varieties of potatoes, we may only see three or four different types in our shops but in a village market in the Andes there could be as many as sixty types to choose from, with skins ranging from brown to pink, red or even purple. There are more than 5,000 different types of potato grown all over the world. They grow best in cooler areas and large amounts are grown in Europe, North and South America, the USSR, Australia and New Zealand.

The relatively short growth cycle of the potato and its high energy content make it a particularly useful staple in any country. Britain produces 6 million tonnes of potatoes each year.
On average each person in the UK eats 100kg (220lb) of potatoes each year.
Potatoes are the most important source of vitamin C in the average British diet.
0.5% vitamins and minerals;
0.5% fibre; 2% protein;
16% carbohydrate;
81% water;
0% fat.

ACTIVITY 22

KNOW YOUR OWN POTATO

PURPOSE

To develop observation and language skills. To affirm the specialness and uniqueness of every individual. To look at similarities and differences.

MATERIALS

One clean potato for each child in the class plus two or three extras.

PROCEDURE

Children work individually, sitting in a big circle on the floor.

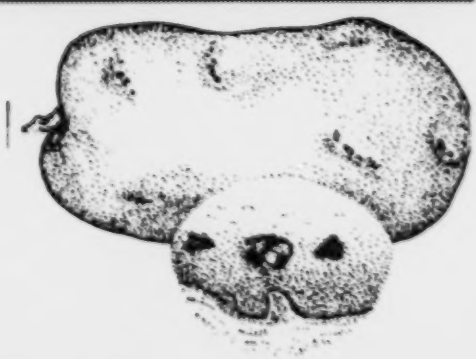
Put all the potatoes in a bag and go round the room and ask each child to take a potato out of the bag. If you have an extra few potatoes the last child won't feel cheated of 'choosing' a potato.

Ask the children to close their eyes for one minute and explore their potato. They should get a sense of what their potato is like through touching it, perhaps smelling it.

After one minute tell them to open their eyes and spend a further 1-2 minutes really looking at their potato.

After 2 minutes collect all the potatoes in the bag and then empty the bag onto a table. Tell the children to go and find their potatoes. Children always find their potato in a few seconds.

Then, either as a class, or in small groups children can say what it was about their potato that made it 'special'.



TEACHERS NOTES

This activity is excellent at developing oracy, children use a wide range of vocabulary to say how they recognised their potato. They can be encouraged to develop this by looking at shape, colour and markings of the potato and describing how it feels. Perhaps they might like to write a poem about their potato.

They can also compare the similarities and differences between their own and all other potatoes and record these observations.

A maths activity could involve weighing all the potatoes and drawing a graph to show the range of weights. The girth of the potatoes could be measured and compared and so on.

FOLLOW UP WORK

SCIENCE

The children might like to prepare a part of the school garden to grow potatoes and, when they are harvested, eat them.

After the children have looked closely at their potato they will have noticed it is covered in small scars called 'eyes'.

If they now store them in a light, cool spot away from direct sunlight they will see the eyes form buds. The buds will sprout, they should keep only three good strong shoots and rub off the others with their thumbs. Then they should dig a furrow in soil that has been mixed with compost about 15cm deep.

The potatoes should be planted about 30cm apart.

Alternatively you can use flower pots to grow potatoes. Choose one which measures at least 20cm across, to give the plant plenty of room to grow. Keep the pot in a sunny place.

The plants should be watered well and any weeds removed. As they grow the soil should be piled around the plants with a hoe.

This makes sure the potatoes will develop in the dark and won't go green and bitter-tasting. After the plants have flowered, dig up the potatoes and eat them.

Farmers and gardeners do not usually plant old sprouting potatoes. Instead, they plant specially-grown small tubers called seed potatoes. Seed potatoes are grown to be disease-free, to make sure of a healthy crop. When the plant starts to grow it is fed by the starch stored inside the potato.
When all the food is used up the roots begin to absorb water and nutrients from the soil. Soon the plant starts to flower.
The flowers may be white, pink or purple, depending on the variety of potato.
The leaves make food for the plant through photosynthesis. Some of the food is stored underground in the stolons, and these swell to form tubers. A plant usually grows three to six potatoes.

EXTENSION WORK TECHNOLOGY

The children should research as many potato recipes as they can and they choose one to cook.
They should buy the ingredients, cook the potatoes and eat them.
Below is a recipe for Bolivian Potato Soup.
Chop 2 large potatoes and 3 carrots.
Boil them in stock with a handful of fresh broad beans and a handful of rice. Meanwhile chop 1 onion and 1 clove of garlic and fry them gently in a little oil. Grind up 1 hot red pepper and add it to the onions (use half a teaspoon of chilli powder if you can't get the pepper).
When the vegetables are cooked, add the onions, garlic and pepper or chilli, then add a little oregano or chopped parsley. Pour the boiling soup into bowls and break a raw egg into each person's bowl. (NB with the salmonella scare you may want to leave the raw egg out if you try this recipe). Sprinkle on a little more chopped parsley and serve.

TEACHERS NOTES

CHUNO

People in the Andes have been preserving potatoes by making chuno for centuries. Chuno is literally freeze-dried potato. It is made during the first frosts. The potatoes are left outside in little piles for five days - hot in the day and cold at night. The people then step on them in their bare feet to get rid of the skins and to press out any water. They are then left in the sun for five days to dry completely. Chuno is black, and sometimes keeps for two years. To eat chuno, water is added and the potato cooked for a long time to make it soft again.

MAKE YOUR OWN CHUNO

Take a small raw potato and put it in a freezer until it is frozen hard.
Then put the potato out in the hot sun for a day (or in the schools' kitchen warming cupboard), back in the freezer for another day, and into the sun/oven again.
Squeeze out any water that is left and dry finally in the sun/warming cupboard.
Children should refer back to Activity 16, to the temperature charts to see the contrast between the heat in the day and the cold at night.
When are the potatoes harvested?
With what season does this correspond?
What are the night time temperatures then?

EXTENSION WORK

SCIENCE AND MATHS

HOW MUCH WATER IS THERE IN A POTATO?

The children should weigh their potatoes before they begin to make the chuno, this weight should be recorded. They then weigh their potatoes when the process is finished.
How much water is in a potato?
Children could work in pairs or individually, and write down the procedure for making chuno, and the process of weighing, recording and finding out how much water there was in their potatoes. Percentages could be used with older children.

POTATO PRINTS

The Incas produced pottery and other articles decorated with patterns like those shown below, the children could cut potato prints and stamp patterns to decorate their own card or papier-mache artefacts

EXTENSION WORK MATHS

ECONOMIC AWARENESS

There are over 24 different flavours of crisps for sale in the UK.

The children could do a class/school survey about crisp eating habits and produce bar graphs to show favourites.

They could investigate the value added to potatoes by comparing the cost of the raw material with the finished product.

ACTIVITY 23

MAKING AN ADOBE TECHNOLOGY PROJECT

PURPOSE

For the children to make model mud and thatch houses as made by the people in the Andes. To follow the four attainment targets for technology.

MATERIALS

See description of how to make the houses below.

PROCEDURE

Children work in groups of 4-8.

AT1

IDENTIFYING NEEDS AND OPPORTUNITIES

Pupils should be able to identify and state clearly needs and opportunities for design and technological activities through investigation of the contexts of home, school, recreation, community, business and industry.

THE HOME

The children can look more carefully at the housing of the Quechua people. They make their houses from the materials available in the high Andes mud, grasses and water. People in the UK used to make their houses from mud bricks as well. The children could investigate UK housing made of similar materials as part of their investigation of building materials.

AT2

GENERATING A DESIGN PROPOSAL

Pupils should be able to generate a performance specification and explore ideas to produce a design proposal and develop it into a realistic, appropriate and achievable design.

DESIGNING AN ADOBE HOUSE

The children can design a house using mud,straw and wood. They should take into account the bitter cold winds of the Andes and the need for warmth, especially at night.

AT3

PLANNING AND MAKING

Pupils should be able to prepare a plan to achieve their design, and to identify, manage and use appropriate resources, including knowledge and processes, in order to make artefacts, systems and environments.

MAKING AN ADOBE HOUSE

Give the children the raw materials and allow them to experiment making a frame for mud bricks, with the right proportion of mud, water and straw to make them; building a frame for the roof and thatching it etc.

AT4

EVALUATING

Pupils should be able to develop, communicate and act upon an evaluation of the processes, products and effects of their design and technological activities and of those of others, including those from other times and cultures.

EVALUATION

The children should evaluate the processes they went through in designing and building their models. They should also evaluate the finished product. Will it stand up to the wind and rain? Can they compare their model houses with those built in Britain in the past and those built in the Andes today?

ACTIVITY 24

THE LURE OF THE CITY

PURPOSE

To understand the pressures on the people of the Andes to leave the mountains for the city.

MATERIALS

Activity Sheet 24A one between each group of four. Activity Sheet 24B, photocopied onto card and cut up, one set between a group of four. Activity Sheet 24C, one between each group of four.

PROCEDURE

Children work in groups of four.
Give each group a set of cards and an instruction sheet.
Children should follow the instructions on the sheet.

TEACHERS' NOTES

THE QUINCENTENNIAL CELEBRATION

The governments of Spain and America are preparing festivals to celebrate 'The Five Hundred Years Since the Discovery of America' (1492-1992).

The indigenous organisations of South America have expressed their indignation in the face of a celebration of what, for them represents invasion, genocide and five centuries of oppression.

The Spanish government have called the celebration 'An Encounter of Two Worlds' which the indigenous people regard as trickery as it would not describe the invasion as 'An Encounter'. 'Five Hundred Years of Indian Resistance' is the title of a counter-programme inaugurated in Ecuador by the Confederation of Indigenous Nations (CONAIE).

The Fifth Centenary of the 'discovery' of America is serving as a time for reflection by people all over the world. In the activity which follows the children can use all the knowledge and understanding they have gained in studying this pack to reflect on the proposed celebration of the quincentennial.

By listening to the voices of the indigenous people of South America they are able to see their point of view and make up their own minds about the decision to celebrate 1492.

ACTIVITY 25

THE QUINCENTENNIAL

PURPOSE

To listen to the voices of the Quechua people talking about the future. To respond to this and empathise by preparing a newspaper article about the quincentennial

MATERIALS

Activity Sheet 25, one between two.

PROCEDURE

Children work in pairs and as a whole class. Instructions follow below.

The governments of South America and Spain are planning celebrations for the Quincentennial of the arrival of Columbus in the 'New World' in 1992.

The indigenous people of South America are not very happy about this celebration of what amounts to genocide of their people. On Activity Sheet 25 is the Indigenous Declaration against the Fifth Centenary of the Discovery of America, children read this statement and discuss it as a class. The teacher needs to go through the statement to make sure the children understand the declaration.

In pairs the children prepare a newspaper article about what the indigenous people think about the celebration.

Material for the newspaper is gathered by following the activity instructions on Activity Sheet 25.

The children should divide into two groups. One group are journalists and shouid prepare questions they would like to ask about the Quincentennial and the other group are the local people. Remind the children of the people they have learnt about; Oscar's family and the people of Lima in Activity 24.. This group should discuss their feelings about the celebration. Then the journalists should interview the people. When the interviews are complete the newspaper articles can be written.

EXTENSION WORK

INFORMATION TECHNOLOGY

After they have prepared their articles they can use the class computer to word process the article and lay it out like a real newspaper. If you have a software programme capable of drawing they could prepare a picture for the article.

TEACHING POINTS

This pack has given children an insight to the past, present and future of the indigenous people of South America.

Their understanding of the geography and history of the region and the lives of some of its peoples will enable them to think seriously about the pros and cons of celebrating the Quincentennial and come to their own conclusions about it.

They will do so from a position of knowledge of the history and geography of the region and the lives of the people today.

In doing so they will be able to step back and reflect on their opinions and share their ideas with others.

This gives them the opportunity to express their own attitudes and values and begin to understand how they have been formed. At the same time they will recognise the validity of different points of view and attain a greater understanding of the ways both our society and others relate to the world. We hope you and the children enjoy this theme as much as we have enjoyed preparing it.

NATIONAL CURRICULUM ATTAINMENT TARGETS

A Mountain Child is a cross-curricular thematic approach to Key Stage 2 and 3. The pack has been written to meet attainment targets in Geography, History, Science, Technology, English and Mathematics. The statements of attainment covered by the activities and extension work in the pack are outlined below.

ENGLISH

There are lots of opportunities in the pack for children to develop skills at levels 3,4,5 and 6 English. There is a particular emphasis on speaking and listening as follows:

Attainment Target: 1 Speaking and Listening

The development of pupils' understanding of the spoken word and the capacity to express themselves effectively in a variety of speaking and listening activities, matching style and response to audience and purpose.

There are a wide variety of reading tasks:

Attainment Target 2: Reading

The development of the ability to read, understand and respond to all types of writing, as well as the development of information-retrieval strategies for the purpose of study.

Activities require children to write in a variety of forms for a range of purposes and audiences:

Attainment Target 3; Writing,

A growing ability to construct and convey meaning in written language matching style to audience and purpose.

Many of the activities are designed to be presented to another audience which will encourage children to pay attention to: **Attainment Target 4, Spelling** and to **Attainment Target 4/5, Presentation.**

HISTORY

Attainment Targets for History are shown below. The programmes of study for history should enable pupils to: *develop knowledge and understanding of British, European and World history.* Teachers are also required to: *explore links between history and other subjects; develop information technology capability; develop knowledge, understanding and skills related to cross-curricular themes.*

A Mountain Child fits into the Programmes of Study in the following ways for Key Stage 2.

As part of **Study Unit 8: Sailors and Ships** b) the age of Francis Drake, and in Wales, Harri Morgan.

As part of **Study Unit 10: Food and Farming** a) ancient times.

Study Unit 15b: Detailed short time-span study of a significant event in history. In the pack children undertake a detailed study of the conquest of the Inca civilisation by the Spanish.

Key Stage 3: The Incas.

TECHNOLOGY

For details of the technology activities see page 31.

ACTIVITY 1

THE EARTH ON THE MOVE

SCIENCE

Attainment Target 1 - Exploration of science

Level 4 - follow written instructions and diagrammatic representations

GEOGRAPHY

Attainment Target 2 - Knowledge and understanding of places.

Level 3 - Name the following features on a world map - equator, the tropics, the continents and the oceans.

ACTIVITY 3

PLATES AND CHAINS

SCIENCE

Attainment Target 1 - Exploration of science

Level 3 - describe activities carried out by sequencing the major features.

Level 4 - follow written instructions and diagrammatic representations

Attainment Target 9 - Earth and Atmosphere Level 5 - know that landscapes are formed by a number of agents including Earth movement.

GEOGRAPHY

Attainment Target 3 - Physical Geography Level 5 - relate the distribution of earthquakes and volcanoes to the boundaries of plates in the Earth's crust.

ACTIVITY 4

MOUNTAINS AND VOLCANOES

SCIENCE

Attainment Target 1 - Exploration of Science Level 4 - follow written instructions and diagrammatic representations

Attainment Target 9 - Earth and Atmosphere Level 5 - know that landscapes are formed by a number of agents including Earth movements; be able to explain how earthquakes and volcanoes are associated with the formation of landforms.

Attainment target 10 - Forces

Level 3 - understand that when things are changed in shape, begin to move or stop moving, forces are acting on them

GEOGRAPHY

Attainment Target 3 - Physical Geography Level 4 - describe how some earth movements are violent, and explain, in simple terms , how volcanic craters, cones and lava flows are formed. See also extension work

Level 5 - relate the distribution of earthquakes and volcanoes to the boundaries of plates in the Earth's crust. See also extension work

MATHEMATICS

Attainment Target 12 - Handling Data - Level 4 - interrogate data in a computer database; Level 5 - Create own database.

ACTIVITY 6

MOUNTAIN REGIONS OF THE WORLD

GEOGRAPHY

Attainment Target 1 - Geographical skills Level 2 - use geographical skills to talk about places

Level 4 - use the eight points of a compass

MATHEMATICS

Attainment Target 8 -Measures - Level 5 - understand the notion of scale in maps and drawings.

Attainment Target 11 -Shape and space - Level 3 - understand eight points of the compass; use clockwise and anti-clockwise appropriately.

ACTIVITY 8

THE WORLD'S MOUNTAINS

SCIENCE

Attainment Target 1 - Exploration of Science

Level 3 - interpret simple pictograms and bar charts

EXTENSION WORK

Attainment target 1 - Exploration of Science Levels - 1,2,3 & 4

Attainment Target 6 - Types and Uses of Materials - Levels - 3 & 4

Attainment Target 9 - Earth and Atmosphere Level 3

GEOGRAPHY

Attainment Target 3 - Physical Geography Level 4 - describe evidence that materials are eroded, transported and deposited

MATHEMATICS

Attainment Target 12: Handling data - Levels 4 and 5 - specify an issue for which data are needed; collect, group and order discrete data etc; understand, calculate and use the mean and range of a set of data; interrogate data in a computer database. Create own database.

ACTIVITY 10

LIVING IN INCA TIMES

HISTORY

Attainment Target 1 - Knowledge and Understanding - Level 3a - Describe changes over a period of time;

3c - Identify differences between periods in the past;

4a - recognise that over time some things changed and others stayed the same;

4b - show an awareness that historical events usually have more than one cause and consequence;

4c - describe different features of an historical situation;
5a - distinguish between different kinds of historical change;
5c - show how different features in an historical situation relate to each other;
6c describe the ideas and attitudes of people in an historical sistuation.
Attainment Target 3 - The use of historical sources - level 3 - make deductions from historical sources.

ACTIVITY 11

LIIFE WITH THE INCAS

HISTORY

Attainment Target 1 - Knowledge and Understanding of History - 3a - Describe changes over a period of time; 4c Describe different features of an historical situation; 5c - show how different features in an historical situation relate to each other; 6c - describe the ideas and attitudes of people in an historical situation.
Attainment Target 2 - Interpretations of history - Level 3 - distinguish between a fact and a point of view.
Attainment Target 3 - The use of historical sources - Make deductions from historical sources.

ACTIVITY 12

THE SPANISH ARE COMING

HIISTORY

Attainment Target 1 - Knowledge and Understanding of History - Level 3a - Describe changes over a period of time; 4b - show an awareness that historical events usually have more than one cause and consequence; 6c - describe the ideas and attitudes of people in an historical situation.
Attainment Target 2 - Interpretations of history - Level 3 - distinguish between fact and point of view.
Attainment Target 3 - The use of historical sources - Level 3 - make deductions from historical sources.

ACTIVITY 13

LIFE BEFORE AND AFTER THE SPANISH

HISTORY

Attainment Target 1 - Knowledge and Understanding of History - 3a - describe change over a period of time;
4b - show an awareness that historical events usually have more than one cause and consequence;
5a - distinguish between different kinds of historical change;
5b - identify different types of cause and consequence;
6c - describe the ideas and attitudes of people in an historical situation.

ACTIVITY 14

CULTUREGRAM

GEOGRAPHY

Attainment Target 2 - Knowledge and Understanding of Places
Level 4 - describe how the way of life of a locality in an economically developing country is affected by its landscape, climate and wealth
* PERU IS ONE OF THE COUNTRIES USED AS AN EXAMPLE OF AN ECONOMICALLY DEVELOPING COUNTRY IN THE PROGRAMME OF STUDY

HISTORY

Attainment Target 1 - Knowledge and Understanding of History - 3c - Identify differences between periods in the past;
4a - recognise that over time some things changed and others stayed the same;
5a - distinguish between different kinds of historical change.

ACTIVITY 16

TEMPERATURE CHARTS

SCIENCE:

Attainment Target 9 - Earth and Atmosphere
Level 2 - know that there are patterns in the weather which are related to seasonal changes
- know that the weather has a powerful effect on people's lives.

GEOGRAPHY

Attainment Target 1 - Geographical Skills
Level 2 - identify features of a locality outside the local area and suggest how these features affect the lives of the people who live there

Attainment Target 2 - Knowledge and understanding of places
Level 3 - compare features and occupations of the local area with the other localities specified in the programme of study.

Attainment Target 3 - Physical Geography
Level 2 - recognise seasonal weather patterns
Level 3 - describe contrasting weather conditions in parts of the world

MATHEMATICS

Attainment Target 13 - Handling Data - Construct and interpret a line graph and know that the intermediate values may or may not have a meaning.

ACTIVITY 17
THE RAIN CYCLE

SCIENCE

Attainment Target 9 - Earth and Atmosphere
Level 2 - know that there are patterns in the weather which are related to seasonal changes; know that the weather has a powerful effect on people's lives
Level 4 - know that climate determines the success of agriculture
Level 5 - be able to explain the water cycle

GEOGRAPHY

Attainment Target 2 - Knowledge and understanding of places
Level 2 - identify features of a locality outside the local area and suggest how these features affect the lives of the people who live there
Level 3 - compare features and occupations of the local area with the other localities specified in the programme of study

ACTIVITY 18
VEGETATION ZONES

SCIENCE

Attainment Target 2 - The Variety of Life
Level 2 - know that plants and animals need certain conditions to sustain life
Level 5 - understand that the differences in physical factors between localities, including differences in seasonal and daily changes, are reflected in the different species of plants and animals found there

Attainment Target 9 - Earth and Atmosphere
Level 2 - know that there are patterns in the weather which are related to seasonal changes; know that the weather has a powerful effect on people's lives
Level 4 - know that climate determines the success of agriculture

GEOGRAPHY

Attainment Target 2 - Knowledge and understanding of places
Level 2 - identify features of a locality outside the local area and suggest how these features affect the lives of the people who live there
Level 2 - describe similarities and difference in land-use, landscape and weather between the local area and another locality specified in the programme of study
Level 3 - compare features and occupations of the local area with the other localities specified in the programme of study.

Attainment Target 4 - Human Geography
Level 4 - give reasons for the ways in which land is used, and for the location of different types of economic activity

Attainment target 5 - Environmental Geography
Level 2 - identify how people obtain materials from the environment

MATHEMATICS

Attainment Target 13 - Handling Data
Level 4 - construct and interpret a line graph and know that the intermediate values may or may not have a meaning.

ACTIVITY 19
THE ANIMALS OF THE ANDES

SCIENCE

Attainment Target 2 - The Variety of Life

Level 3 - be able to recognise similarities and differences among living things; know that living things respond to daily and seasonal changes

Level 4 - be able to recognise similarities and differences both within and between groups of plants and animals

Level 5 - understand that the differences in physical factors between localities, including differences in seasonal and daily changes, are reflected in the different species of plants and animals found there

GEOGRAPHY

Attainment Target 2 - Knowledge and understanding of places

Level 3 - compare features and occupations of the local area with the other localities specified in the programme of study.

Attainment Target 4 - Human geography

Level 4 - give reasons for the ways in which land is used, and for the location of different types of economic activity

ACTIVITY 20
FARMING ON THE ALTIPLANO

SCIENCE

Attainment Target 9 - Earth and Atmosphere

Level 4 - know that climate determines the success of agriculture

GEOGRAPHY

Attainment Target 2 - Knowledge and understanding of places

Level 2 - identify features of a locality outside the local area and suggest how these features affect the lives of the people who live there

Level 3 - compare features and occupations of the local area with the other localities specified in the programme of study.

Level 4 - To examine the impact of landscape, climate and wealth on the lives of people in a locality of an economically developing country.

Attainment Target 4 - Human Geography

Level 4 - give reasons for the ways in which land is used, and for the location of different types of economic activity.

Attainment Target 5 - Environmental Geography

Level 2 - identify how people obtain materials from the environment - describe ways in which people have changed the environment

HISTORY

Attainment Target 1 - Knowledge and Understanding of History -

5a - Distinguish between different kinds of historical change;

5b - Identify different types of cause and consequence; 6a show an understanding that change and progress are not the same.

ACTIVITY 21
WHO DOES WHAT?

GEOGRAPHY

Attainment Target 2 - Knowledge and understanding of places

Level 4 - To examine the impact of landscape, climate and wealth on the lives of people in a locality of an economically developing country.

Level 4 - describe how the way of life of a locality in an economically developing country is affected by its landscape, climate and wealth

Attainment Target 4 - Human geography

Level 4 - give reasons for the ways in which land is used, and for the location of different types of economic activity

Attainment Target 5 - Environmental Geography

Level 2 - identify how people obtain materials from the environment

HISTORY

Attainment Target 1 - Knowledge and Understanding of history -

5a - distinguish between different kinds of historical change;

5b - Identify different types of cause and consequence; 6a - show an understanding that change and progress are not the same.

ACTIVITY 22

KNOW YOUR OWN POTATO

SCIENCE

Attainment Target 2 - Variety of life
Level 4 - be able to recognise similarities and differences both within and between groups of plants and animals

Attainment Target 1 - Exploration of Science
Level 4 - raise questions in a form that can be investigated

- formulate testable hypothesis
- construct "fair tests"
- plan an investigation where the plan indicates that the relevant variables have been identified and others controlled
- draw conclusions from experimental results
- describe investigations in the form of ordered prose, using a limited technical vocabulary

Attainment Target 2 - The Variety of Life
Level 2 - know that plants and animals need certain conditions to sustain life; understand how living things are looked after and be able to treat them with care and consideration
Level 3 - be able to recognise similarities and differences among living things
know that living things respond to daily and seasonal changes
Level 4 - be able to recognise similarities and differences both within and between groups of plants and animals

ACTIVITY 24

THE PULL OF THE CITY

GEOGRAPHY

Attainment Target 4 - Human Geography
Level 4 - explain why few people live in some areas and many people live in others.

HISTORY

Attainment Target 2 - Knowledge and Understanding of History - 5b - identify different types of cause and consequence; 6a - show an understanding that change and progress are not the same.

ACTIVITY 25

THE QUINCENTENNIAL

HISTORY

Attainment Target 2 - Interpretations of history - Level 4 -show an understanding that accounts of the past may differ for valid reasons;
Level 5 - recognise that accounts of past events may differ from what is known to have happened;
Level 6 - show that the ways in which historical sources are selected can affect interpretations.

USEFUL RESOURCES

AUDIO-VISUAL

An important part of this pack is the video: MOUNTAINS. This is part of an excellent series called TWO-WAY TICKET produced for Yorkshire Television in conjunction with UNICEF.

Two of the other programmes in the series have active learning packs to accompany them. One focuses on the life of a child in the rainforests of Borneo and the other on the life of a Sami child in Norway. The packs are available from Greenlight Publications priced £16.50 and £12.00 respectively. Other programmes in the series focus on a desert child, a river child and an island child. The programmes are all excellent and it is worth schools or teachers' centres buying the whole set which costs £29.95 for all six programmes.

You can get them from: Jeff Foster, Yorkshire TV, Kirkstall Road, Leeds 3. It is worth checking first with your local teachers' centre as many have bought the video for their resource collections.

The video can also be borrowed from the following sources.

In Wales it is available from:
OXFAM 33 Whitchurch Road, Cardiff. Telephone: 0222 619003.
and CDU, Terrace Road School, Swansea.

In Scotland it is available from:
Scottish DEC, Old Playhouse Close, Moray House College of Education, Holyrood Road, Edinburgh EH8 8AQ. Telephone: 031 557 3810.

COMPUTER SOFTWARE

Plate Tectonics - BBC Microcomputer Science Education Software, Unit 12, Marian Industrial Estate, Dolgellau, Gwynedd.
Although aimed at GCSE, this programme can be used at lower levels and shows continental drift and sea-floor spreading, plate processes and world distribution of plates.

RESOURCES GUIDE - TEACHERS

WORLD STUDIES 8-13,
Simon Fisher and David Hicks
Oliver and Boyd
Contains a wealth of ideas for active learning.

MAKING GLOBAL CONNECTIONS,
A WORLD STUDIES WORKBOOK,
Edited by David Hicks and Miriam Steiner.

GLOBAL TEACHER/GLOBAL LEARNER,
Graham Pike and David Selby,
Hodder and Stoughton

THEME WORK - TEACHING WITH A GLOBAL PERSPECTIVE,
DEC, Birmingham.
Part of a series of three books on development education in the primary school.

A RAINFOREST CHILD (Second edition),
Lyle and Roberts
Greenlight Publications
This pack focuses on the Yanomamo of Amazonia and a child from the rainforests of Borneo. The second edition focusses on science and geography attainment targets and helps children understand the importance of tropical rainforests and the consequences of their destruction.

AN ARCTIC CHILD,
Lyle and Roberts
Greenlight Publications
This pack focuses on the history of the Ihalmiut people of Canada, and on the life of a Sami child living in Norway. The pack seeks to ask moral questions about the impact of the developed world on the Arctic both in the past and the present. Good for science attainment targets.

CHILDRENS BOOKS

TWO WAY TICKET,
Sarah Hobson
Macdonald
Out of print but available through libraries

and teachers' centres. A book to accompany the video series with a chapter on Oscar Gallero from Peru, featured in this pack.

OUR WORKING EARTH
A three dimensional guide
Gillian Osband and Richard Clifton-Dey
(Macmillan)
Excellent activities on mountain building.

WORLD DISASTERS - Earthquakes,
Brian Knapp
Macmillan
Good for extension work on earthquakes.

THE STORY OF THE EARTH - Mountains,
Lionel Bender
Franklin Watts
Suitable for younger children.

EARTH SCIENCE LIBRARY, Mountains
Martin Bramwell
Franklin Watts

EARTH SCIENCE LIBRARY, - Volcanoes and Earthquakes,
Martin Bramwell
Franklin Watts
Colourful and simply laid out, useful for children to do their own research.

THE FACE OF THE EARTH- Mountains,
Jenny Vaughn
Macmillan
All about Mountains (simpler version of The face of the earth), Donna Bailey (Macmillan) - Very broad overview of the world's mountains written at two different levels using the same pictures.

HILLS AND MOUNTAINS,
Mark C.W. Sleep
Wayland
Lots of suggestions for science and geography activities. .

PLANET EARTH- Volcanoes,
James Carson
Wayland

PLANET EARTH - Mountains and Earth Movements,
Iain Bain
Good back up books for the children to read themselves, well illustrated.

LET'S LOOK AT VOLCANOES
Graham Rickard
Wayland
Good for extension work on volcanoes.

MOUNTAINS AND PEOPLE,
Iain Bain
Wayland
Good for an overview of the mountains of the world and the people who live there.

YOUNG GEOGRAPHERS INVESTIGATE
The Earth and Mountains
Terry Jennings
Oxford University Press.
Part of an excellent series, invaluable for basic geography and science work in the junior school.

POTATOES
Dorothy Turner
Wayland.

TEACHERS BOOKS

SWEAT OF THE SUN - TEARS OF THE MOON - IN SOUTH AMERICA,
Jack Pizzey,
Macdonald.
From the television series the book follows Jack Pizzey's journey through South America. The South American Incas called gold "the sweat of the sun" and silver "the tears of the moon".

OPEN VEINS OF LATIN AMERICA
Five centuries of the pillage of a continent
Eduardo Galeono.
Monthly Review Press.
If you are to read one book on the history of Latin America this is the one to read. It gives a total account of the despoliation of the land, people and culture of the continent.

BOOKS ABOUT THE INCAS

LOST CITY OF THE INCAS
David Roberts
Mills and Boon

THE CONQUEST OF SOUTH AMERICA
Richard Tames
Methuin

EVERYDAY LIFE OF THE INCAS
Ann Kendall
Batsford

USEFUL ADDRESSES

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C/O Terrace Road School, Terrace Road, Swansea. West Glamorgan.

CAFOD
2 Romero Close, Stockwell Road, London SW9 9TY.

CHRISTIAN AID
P.O. Box No 1, London, SW9 8BH.

LATIN AMERICA BUREAU
1 Amwell Street, London EC1R 1UL

MINORITY RIGHTS GROUP
29 Craven Road, London WC2N 5NT

MUSEUM OF MANKIND
Burlington Gardens, London.

NADEC
(National Association of Development Education Centres)
6 Endsleigh Street, London WC1H ODX.
Contact Sandy Henderson for a list of DECs in the UK.

OXFAM
274 Banbury Road, Oxford OX2 7DZ.

SURVIVAL INTERNATIONAL
310, Edgware Road, London W2DY

WORLD WIDE FUND FOR NATURE
Panda House, 11-13 Ockford Road, Godalming, Surrey GE7 1QU.

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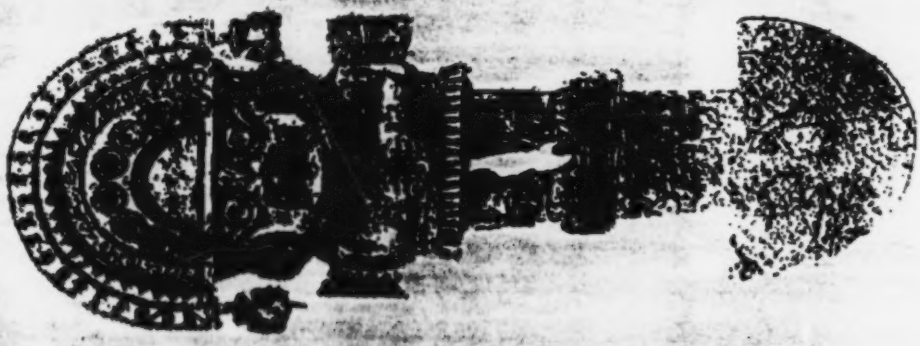
LIFE WITH THE INCAS

QUESTION CARDS



CHANCE CARDS

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PRIVILEGE CARDS

SEASONS CARDS

BEST COPY AVAILABLE

LIFE WITH THE INCAS

SEASON CARD 10	SEASON CARD 1
SEASON CARD 11	SEASON CARD 2
SEASON CARD 12	SEASON CARD 3
SEASON CARD 13	SEASON CARD 4
SEASON CARD 14	SEASON CARD 5
SEASON CARD 15	SEASON CARD 6
SEASON CARD 16	SEASON CARD 7
SEASON CARD 17	SEASON CARD 8
SEASON CARD 18	SEASON CARD 9

There are 6 million people living in the Inca Empire and they all have to be fed. Most people work on the land, but they have to grow food for the gods and the Emperor before they can grow food for themselves.

August is the beginning of the farming year. The Andes are south of the equator, so it is the winter. In the mountains, steps or terraces have been cut into the hillside to grow the crops.

All farming has to be done in strict order, first you have to look after the fields of the gods, then the fields of the Emperor and finally your own fields. Work for the gods and the Emperor is done to pay the labour tax, the mita: everyone has to pay it.

The men begin to prepare the land for the crops by ploughing using a digging stick with a metal tip.

Maize and potatoes are the most important crops because your diet is mainly vegetarian. The only meat eaten is guinea pig and wild duck.

Irrigation channels have been dug to carry water to the fields. Irrigation channels are canals dug above the fields and the mountain streams are diverted into them to provide water for the crops.

You keep animals like llamas and alpacas mainly for their wool and to use as pack animals to carry goods. On special festivals a llama may be killed to eat, or sacrificed to the gods.

Late in August llama dung and human sewage is spread on the fields to manure them.

Near the coast where the weather is very warm, they grow cotton to spin and weave into cloth for clothes.

Before the crops are sown in September, the irrigation channels are checked to see they are clear so the water can reach the fields.

On the lower mountain slopes where it doesn't get so cold, vegetables like beans, chillis, tomatoes and avocados are grown.

Before the crops are sown there is a festival to celebrate the new season. Everyone dances and sings and drinks chucha beer.

Of course farming isn't the only work to do. The women are kept busy spinning the wool from the llamas and alpacas to make into blankets and clothes. They dye the wool bright colours using plant and mineral dyes.

During September and October the crops of maize and potatoes are sown. The men make the holes in the ground and the women plant the seeds.

The men not only have to work in the fields of the gods and the Emperor, they have to do public service by serving in the army and help to build roads and bridges and public buildings.

After the seeds have been planted more llama dung is put on the land to help the seeds to grow.

We're going to follow the farming year of the people who live in the mountains of the Andes. Here they grow mainly potatoes and some maize.

When the shoots begin to appear the women and girls are kept busy weeding and watering the crops.

SEASON CARD 28

SEASON CARD 19

SEASON CARD 20

SEASON CARD 21

SEASON CARD 22

SEASON CARD 23

SEASON CARD 24

SEASON CARD 25

SEASON CARD 26

SEASON CARD 27

The boys are kept busy between October and December scaring the birds away from the crops.	No-one goes hungry in the Inca empire, the Emperor's stores also makes sure the retired, the sick and the needy are all fed and looked after.
In December summer has arrived and the rainy season starts. The coca plants are put in the ground. Coca is used by doctors as medicine.	
Before the first harvest in January, men and women sleep in the fields armed with slings and rattles to drive away intruders.	
In January there is a harvest of early maize. Everyone is very happy and great festivals are held to celebrate the crops. Offerings are made to Pacamama, the God of Mother Earth, who helped the crops to grow.	
The maize is carefully dried and placed in the storehouses of the gods, the Emperor, and the farmers according to whose fields they came from.	
In June the potatoes are harvested. This is the happiest time of the year. The crops must be brought in quickly before the frosts come in July.	
The potatoes are dried by leaving them out in the hot sun during the day and in the freezing air at night.The skin and any water is removed by treading. It's called chuno and can keep for up to two years in the storehouses.	
At the end of the harvest when the crops have been dried they are taken to the storehouses of the gods, the Emperor and the farmers. The food for the gods will feed the priests and sacred virgins and used to make sacrifices.	
Food in the Emperor's stores will feed the nobles, the craftsmen, artisans and the army.	

QUESTION CARD	QUESTION CARD
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Who knows what weapons the army fight with? ANSWER: **A Soldier.** If he tells you he can throw the die, if not he moves 3 places backward.	***Who makes gold face masks for the mummies and bronze tips for the plough?*** ANSWER: **A craftswoman.** If she tells you she can throw the die, if not she moves 3 places backwards.
Who knows how to make a suspension bridge? ANSWER: **A Soldier** If he tells you he can throw the die, if not he moves 3 places backwards.	***Whose son has been chosen to be a runner for the empire.*** ANSWER: **A Peasant.** If he tells you he can throw the die, if not he moves 3 places backwards.
Who builds roads? ANSWER: **A Stonemason** If he tells you he can throw the die, if not he moves 3 places backwards.	***Who works in the temple as a Virgin of the Sun?*** ANSWER: **A Chosen woman.** If she tells you she can throw the die, if not she moves 3 places backwards.
Who may take a chosen woman to be his wife? ANSWER: **A Nobleman** If he tells you he can throw the die, if not he moves 3 places backwards.	***Who will never marry? Why?*** ANSWER: **A Chosen woman.** If she tells you she can throw the die, if not she moves 3 places backwards.
Who is responsible for making sure the steep walls on roadsides are safe? ANSWER: **A stonemason.** If he tells you he can throw the die, if not he moves 3 places backwards.	***Who helps look after local affairs and makes sure the people keep the laws?*** ANSWER: **A Nobleman.** If he tells you he can throw the die, if not he moves 3 places backwards.
Who is the doctor? ANSWER: **The Priest** If he tells you he can throw the die, if not he moves 3 places backwards.	***Who is the son of the sun on Earth?*** ANSWER: **The Emperor.** If he tells you he can throw the die, if not he moves 3 places backwards.
Who hears confessions from those who have done wrong? ANSWER: **The Priest.** If he tells you he can throw the die, if not he moves 3 places backwards.	***Who makes all the laws for the empire?*** ANSWER: **The Emperor** If he tells you he can throw the die, if not he moves 3 places backwards.
Who weaves, spins and dyes cloth to make clothes and blankets? ANSWER: **A peasant.** If he tells you he can throw the die, if not she moves 3 places backwards.	***Who has to go to work on a public building for the Empire?*** ANSWER: **A Peasant.** If he tells you he can throw the die, if not he moves 3 places backwards.

CHANCE CARD	CHANCE CARD
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PEASANT
Bad harvest, go back to the storehouse to collect food for your family.
Give up any privilege cards you have.

PRIEST
The rainy season is late in coming. You sacrifice to Illapa, the thunder god, to help send rain. **Go to the temple. Collect one privilege card on the way.**

PEASANT
You are caught stealing food from a storehouse and have been sentenced to death by being thrown from a cliff.
Go back to the beginning.

NOBLEMAN
You are ill, this must be a punishment from god for something you have done wrong.
Miss a turn

SOLDIER
You have to leave your land to serve in the army for two years.
Go back to the beginning.

PEASANT
It is your daughter's third birthday and she has her first haircut. Now she will be a working member of the household.
Take an extra turn.

PEASANT
At last the road that you have been working on is finished. It has taken years to build, it runs many miles from the village into the mountains.
Take an extra turn.

PEASANT
You have had a bad accident and cannot work anymore. You will be given food from the Emperor's storehouses. **Go back three places.**

PEASANT
Your daughter has been picked to be a chosen women. She will learn how to weave, run a household and never have to work in the fields.
Throw again.

KEEP THIS AS A PRIVILEGE CARD.
EMPEROR
You travel throughout your empire on a fine litter carried by your servants.
All your scores are doubled from now on.

CRAFTSWOMAN
You have been asked to make a rug for one of the noblemen's houses, this is indeed an honour.
Take another turn.

KEEP THIS AS A PRIVILEGE CARD
NOBLEMAN
You have freedom of movement around the empire.
While you have this card your die score is doubled.

CHOSEN WOMAN
You are to help perform a ceremony. You will have a new costume and gold necklace for the occasion.
Move on to the temple, collect a privilege card if you pass the start again.

PRIEST
You have cured a nobleman from a serious illness.
Move forward to the beginning and collect a privilege card.

STONEMASON
You have received praise from the Emperor for one of the public buildings you have designed.
Collect a privilege card.

PRIEST
The rainy season is late, sacrifice to Illapa the thunder god to send rain. **Go to the temple collect one privilege card on the way.**

PEASANT
You have been given permission to take your surplus goods into the market. You load up your llama to go.
Take an extra turn.

SOLDIER
You have been made an officer in the army, you have many men in your command.
Pick up three privilege cards.

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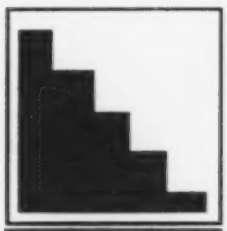
11 SIMULATION INSTRUCTIONS

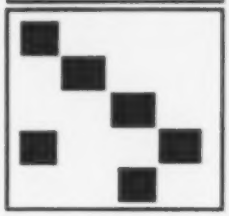
Lay out the board and put the chance cards, question cards and privilege cards in the correct boxes on the board.
Make sure the **SEASONS CARDS** are in the correct numbered order 1-28 and place them on the board.
You need a dice.
This simulation is for eight players.
Stay in the role you have been given throughout.
There are eight roles: **Emperor, Nobleman, Chosen Woman, Priest, Craftswoman, Soldier, Stonemason, Peasant.**

The purpose is to travel around the board as many times as possible and collect as many privilege cards as possible during one year in the life of the Inca people.
Every time you pass the start collect a **PRIVILEGE CARD.**
The person with the most privilege cards at the end is the winner.
We begin by each player throwing the dice in turn as follows:
Emperor, Nobleman, Priest, Soldier, Chosen woman, Craftswoman, Stonemason, Peasant.



If you land on a square marked like this, pick up a QUESTION CARD.
Read out the question and WAIT for the correct answer.
If the person who is meant to reply fails to, then tell them the answer and tell them their punishment.
If you pick up your own question card, you should put it to the bottom of the pile.

If you land on a square marked like this pick up a CHANCE CARD.
At the top of the card is the name of the person the card is about.
This person has to follow the instructions on the card.



If you land on a square marked like this take one of the numbered SEASON CARDS and read it aloud.

After the cards have been read place them on the bottom of the pile.

When each player passes the start they collect 1 privilege card.

The game is over when seasons card number 28 has been read.
Who has the most privilege cards?
Rank the people in the game in order of importance based on how many privilege cards they have.
What do you think it would be like living in Inca society?
Discuss this staying in your roles.

ACTIVITY SHEETS

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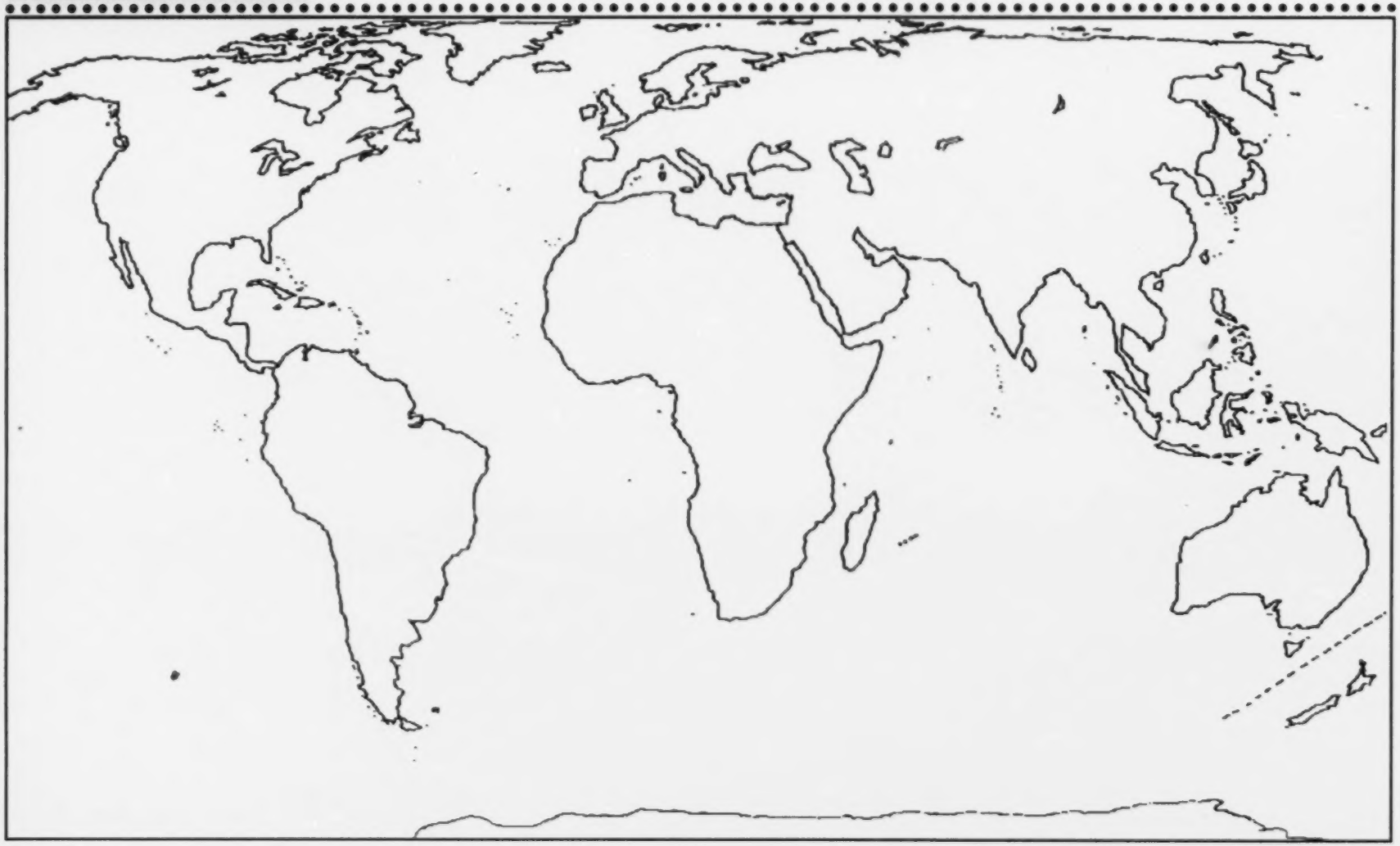
GREENLIGHT PUBLICATIONS 1991

Section 1

Geology
Geography
Mountains and volcanoes
Plates and chains

1A THE EARTH ON THE MOVE



1B THE EARTH ON THE MOVE

On the map of the world we see that there are six land masses which we call continents.
The world hasn't always been like this.
Two hundred million years ago all the continents were joined together in one large land mass.
This land mass was called **Pangea.**
Gradually this land broke up and moved until today we have six continents which were formed from the one big land mass we had 200 million years ago.
Look at the five outline maps of the Earth and answer the questions.

1 Find the outline which shows the six continents as they are today.
Colour in each continent with a different colour.

2 Draw a key showing which colour you have given to each continent and name them - **Africa, Eurasia, South America, North America, Australia and Antarctica.**

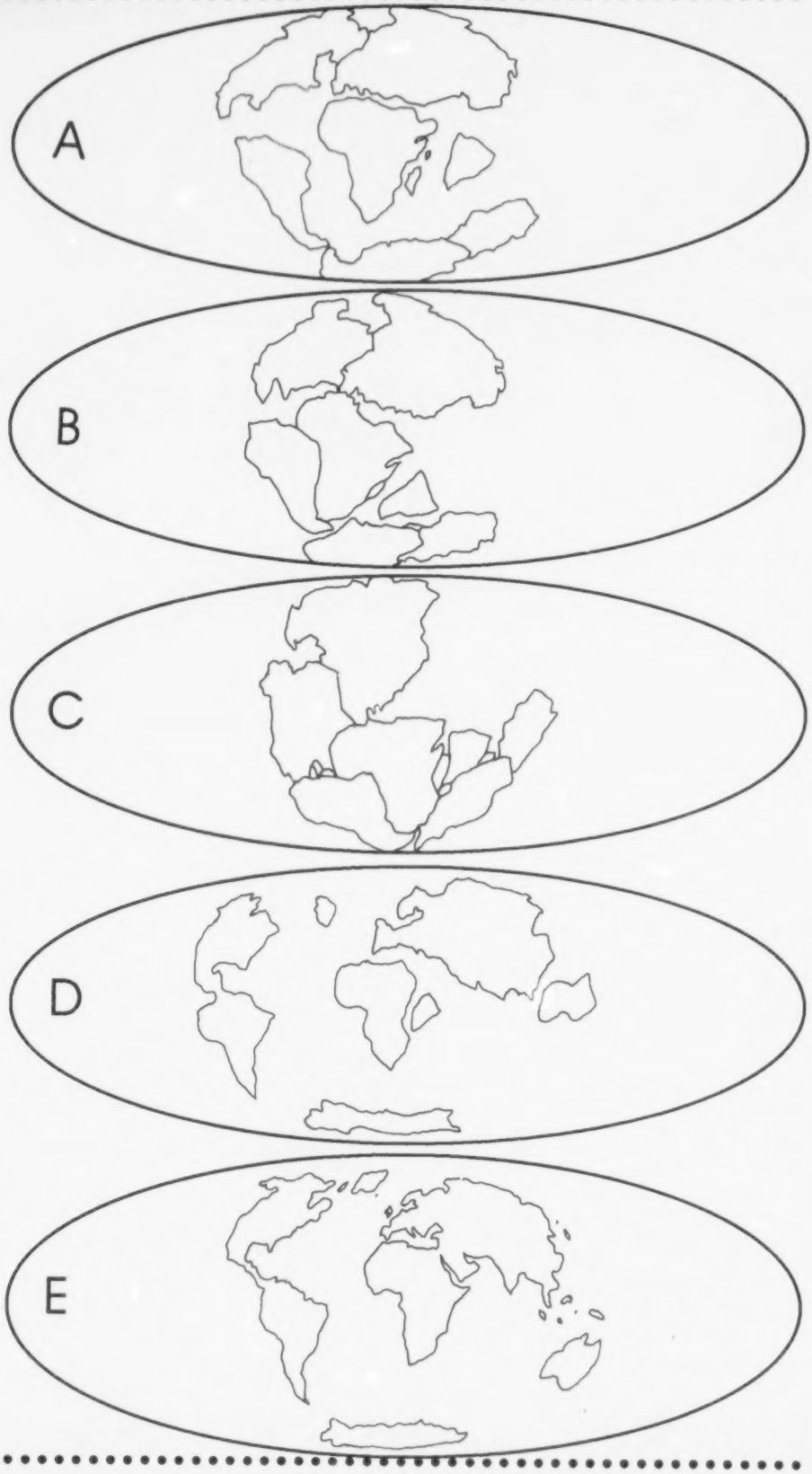
3 Find Pangea, the one which shows the land as **one** big mass.

The land is still moving.
The other three diagrams show how the land has changed from Pangea to how it is today and how it will be in 50 million years time.

4 **Using the same colours, colour in each of the continents.**
Can you put all the diagrams in the right order and number them? Make sure each of the maps is coloured with the same colour showing each of the continents. This will show clearly how the continents have moved.

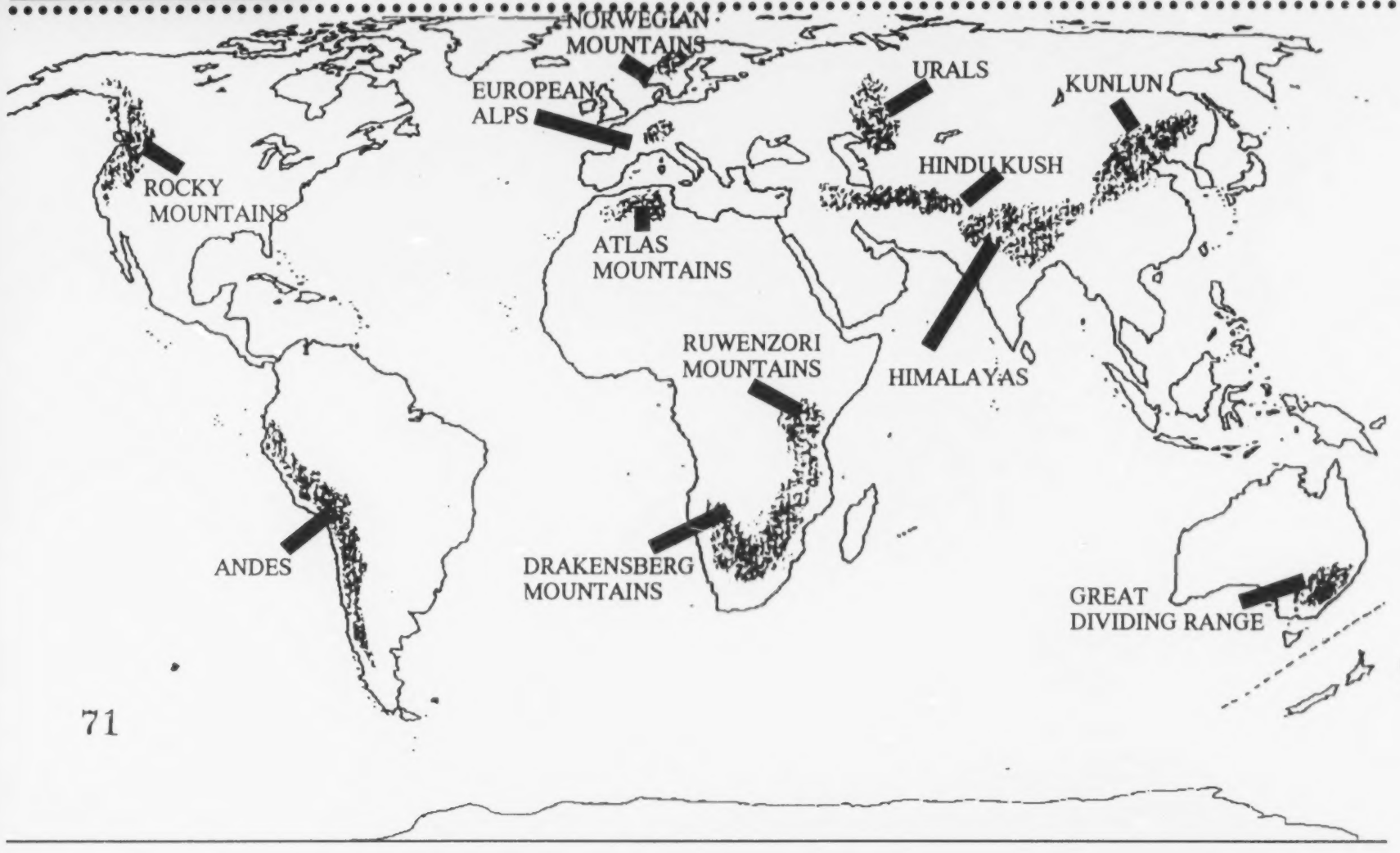
5 When you have put the maps into the right order fill in the chart below.

DATE	MAP
200 million years ago	
140 million years ago	
65 million years ago	
Today	
50 million years in the future	


A
B
C
D
E

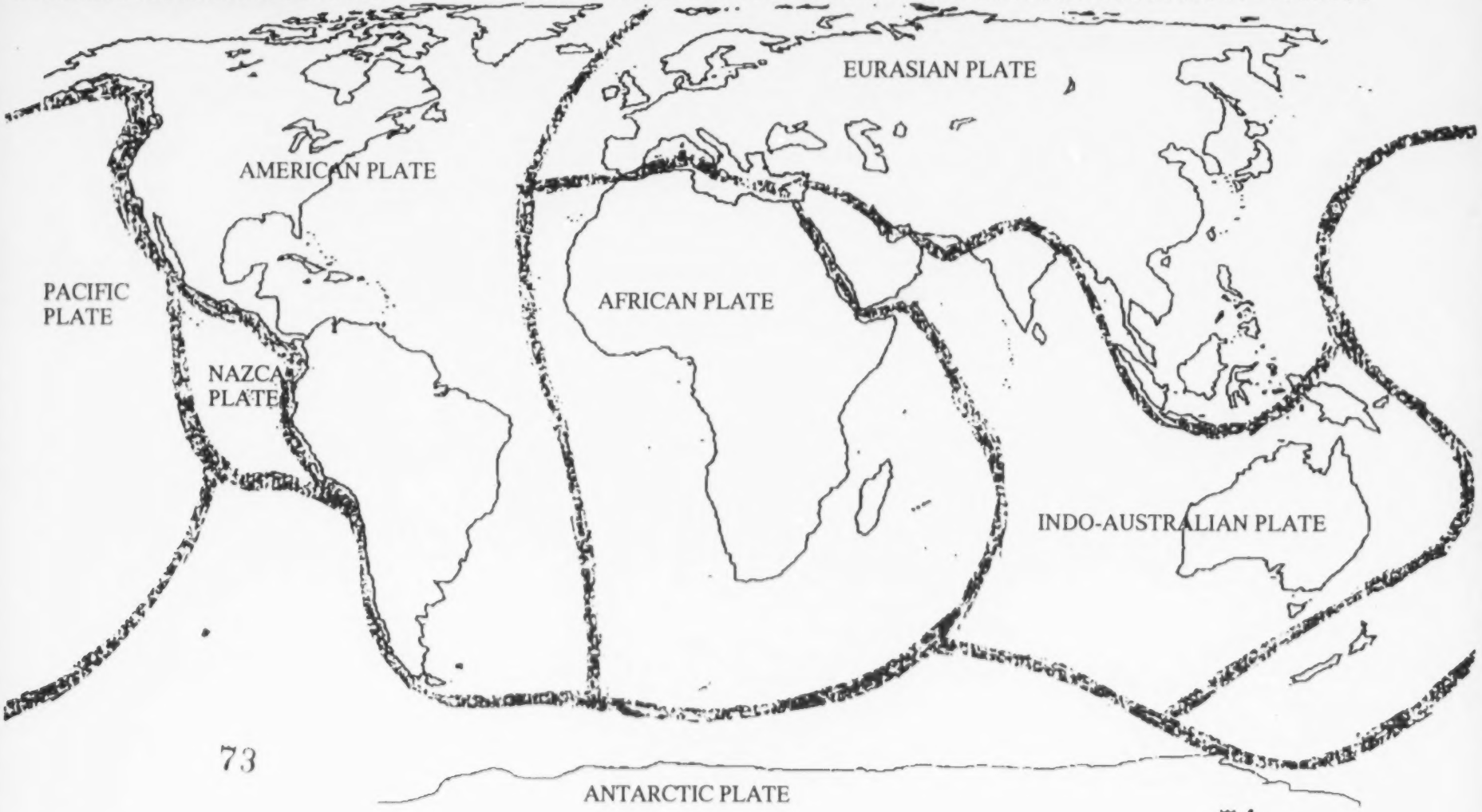
3A

PLATES AND CHAINS

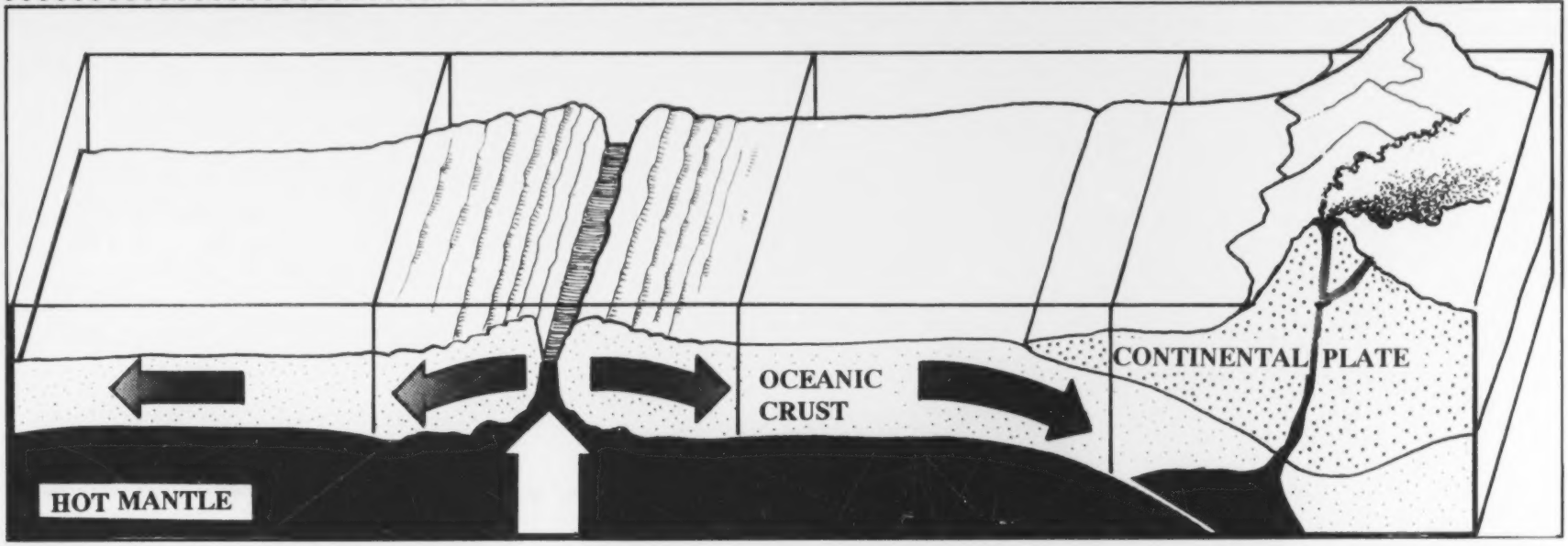


3B

PLATES AND CHAINS



4 MOUNTAINS AND VOLCANOES



Task 1 - Cut up the pieces of text below and match them to the correct sections on the diagram.
Task 2 - If two **continental** plates collide with each other then **fold** mountains are formed. Can you draw a diagram of this?

SEA FLOOR SINKS
The oceanic crust meets the continental crust.
The oceanic crust is thinner and it sinks down under the continental crust.
As it goes down into the hot mantle it melts.

MOUNTAINS AND VOLCANOES
The melted rocks form magma which rises up through the crust under the continent.
When it reaches the surface a volcano is formed.

SEA FLOOR SPREADING
The rock that reaches the surface and cools becomes solid new crust. This pushes the oceanic crust away from the ridges and it moves towards the continent.

MID-OCEAN RIDGES
Between these ridges under the sea, the hot liquid rock of the mantle rises to the surface.
It rises into a gap between two plates.
When the molten rock reaches the surface it cools and becomes solid rock.

5 WHAT HAVE WE LEARNED SO FAR?

1 Name a main mountain range on each continent.
2 Describe the Earth's core.
3 Describe the Earth's mantle.
4 What do we call the 15 or so pieces which make up the Earth's crust?
5 Why is it possible for the continents to drift apart?
6 Which is the highest mountain in the world?
7 Name a mountain in Britain.
8 Where do you find volcanoes?
9 The Earth was once one big land mass. What was it called?
10 Why do you think earthquakes happen?

WORD SEARCH

In the grid below are lots of words you will have learnt about the Earth and mountains.
See how many you can find.
There are thirteen words altogether.

S	O	L	I	D	J	E	A	L	P	S	A
P	T	U	V	Y	C	R	Z	M	G	T	V
R	N	K	O	P	B	O	N	F	S	B	A
O	E	A	L	S	C	I	G	U	P	Z	L
C	N	M	C	L	A	U	R	O	N	B	D
K	I	J	A	T	P	C	E	D	L	O	F
S	T	F	N	W	M	P	B	R	W	K	Q
L	N	U	O	B	J	A	R	Y	S	G	J
A	O	Y	K	U	M	R	N	B	F	C	O
M	C	L	I	Q	U	I	D	T	Y	O	P
B	P	V	W	A	C	Z	G	I	L	R	G
D	E	A	R	T	H	Q	U	A	K	E	W

6 MOUNTAIN REGIONS OF THE WORLD

You live in the **Andes.**
There are six countries in the Andes: Colombia, Ecuador, Peru, Bolivia, Chile, Argentina.

You live in the **Andes** on the border between Peru and Bolivia. People in the Andes speak Spanish and Quechua (pronounced "ketchwa").

SOUTH
Which countries are in the Pyrenees?
Who can tell us about Mount Aconcagua?

You live in the **Himalayas.**
There are seven countries in the Himalayas: Pakistan, India, Tibet, Nepal, Bhutan, Sikkim and China.

Mount Kilimanjaro is in Tanzania it is 5,895 metres above sea level.

SOUTH WEST
Who's got one of the youngest mountain ranges in the world?
Tell us something about the Grampian Hills.

You live in the **Alps.**
There are five countries in the Alps: France, Germany, Austria, Italy and Switzerland.

You live in New Guinea, in Australasia. The mountain range there is called the **Madke** mountains.

WEST
Who can tell us about the Ruwenzori mountains?
What languages are spoken in the Andes?

You live in the **Pyrenees.**
There are two countries in the Pyrennes: Spain and France.

Chogori Mountain in the Himalayas is 8,900 metres above sea level. It is the highest peak in the world.

NORTH WEST
Where are the Drakensberg mountains?
Who can tell us about the Rocky mountains?

You live in the **Grampian** mountains in Scotland. They are one of the oldest mountain ranges in the world. The highest peak is Ben Nevis at 1,343 metres

Mont Blanc in the Alps is 4,810 metres above sea level. It is the highest mountain in Europe.

NORTH
Which countries are in the Andes?
Who can tell us about Chogori mountain?

You live in the **Drakensberg** mountains which are in Southern Africa.

Mount McKinley is in the Rockies in North America, it is 6,193 metres above sea level.

NORTH EAST
Which countries are in the Himalayas?
Who can tell us about Mount Kilimanjaro?

The **Himalayas** are one of the youngest mountain ranges in the world.

Mount Aconcagua is in Argentina in South America, it is 6,959 metres above sea level.

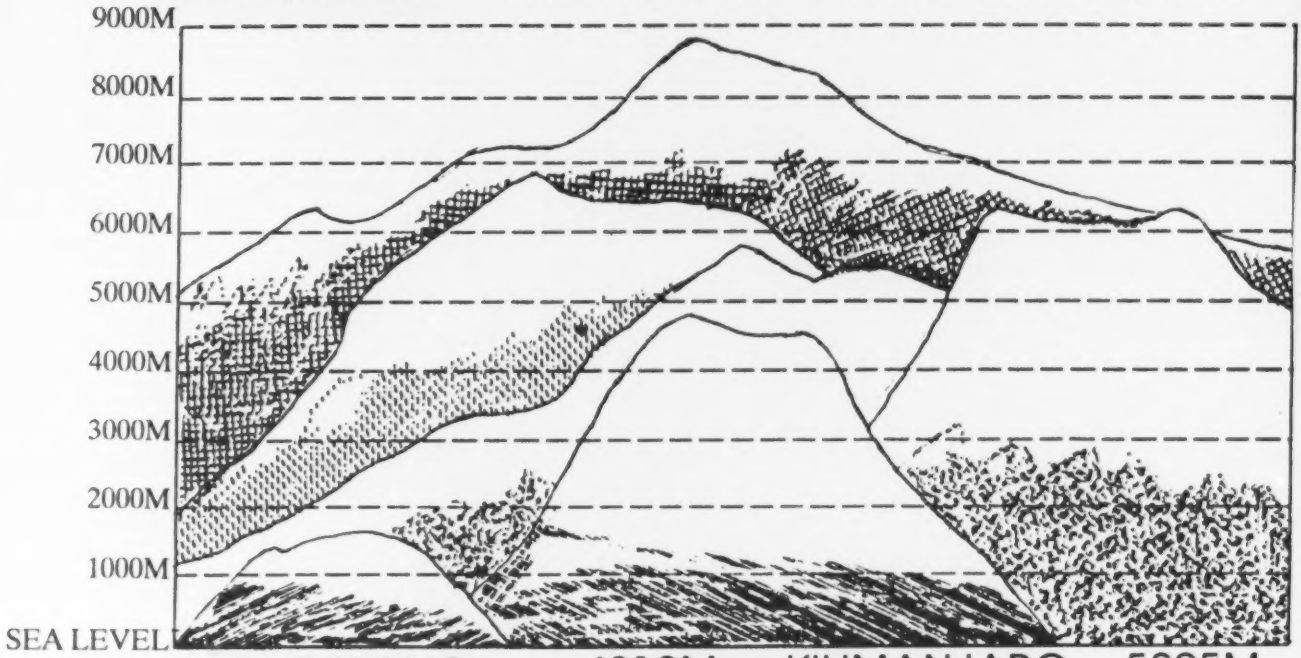
EAST
What are the mountains of New Guinea called?
Who can tell us about Mont Blanc?

You live in the **Ruwenzori** mountains which are in Uganda and Zaire. These mountains are the source of the river Nile.

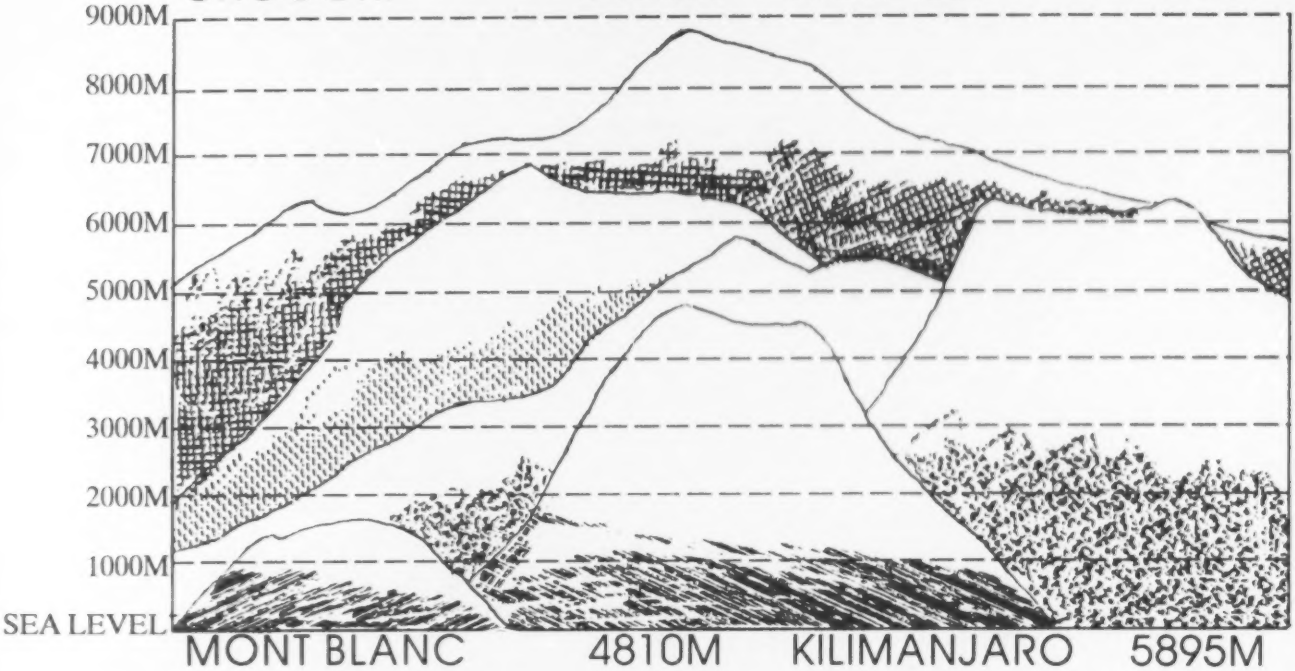
The Rockies are in North America, in the USA and Canada. The highest peak is Mount McKinley.

SOUTH EAST
Which countries are in the Alps?
Who can tell us about Mount McKinley?

8 THE WORLD'S MOUNTAINS



MONT BLANC	4810M	KILIMANJARO	5895M
ACONCAGUA	6959M	BEN NEVIS	1343M
CHOGORI	8900M	McKINLEY	6193M



MONT BLANC	4810M	KILIMANJARO	5895M
ACONCAGUA	6959M	BEN NEVIS	1343M
CHOGORI	8900M	McKINLEY	6193M

9A MOUNTAIN BUILDING

INTERESTING FACTS ABOUT MOUNTAINS GEOGRAPHY GROUP

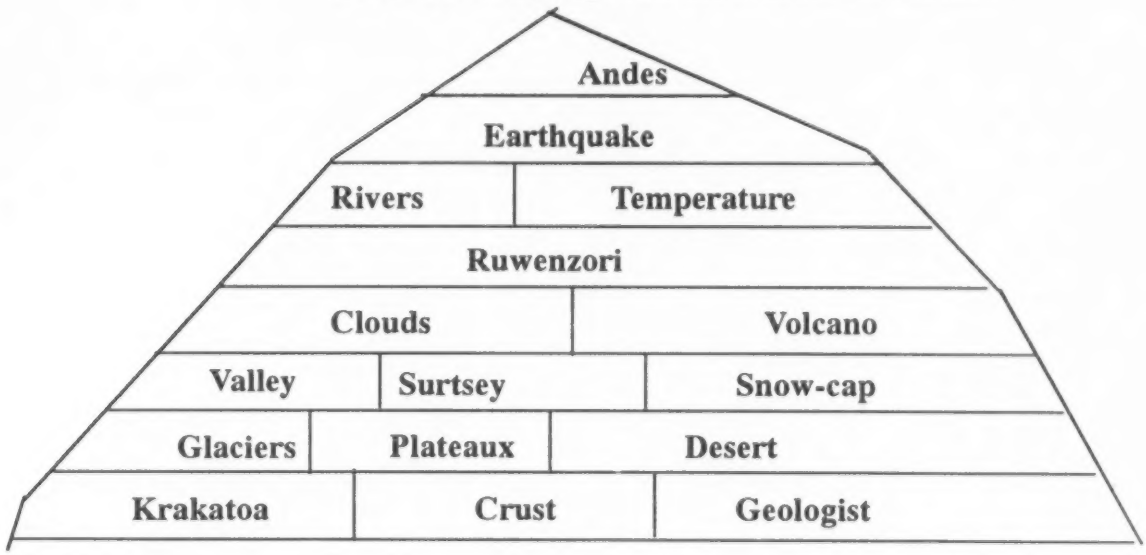
TASK 1 **At the bottom of the page you have a mountain with words on it.**

Read the four sentences below and find the key "mountain" word in each sentence and then colour in that word on **your** mountain.

1. Glaciers are slow moving rivers of ice which move from above the snowline down the valley towards the sea.
2. The dip between two mountains is called a valley.
3. Large areas of flat land found high above sea level are called plateaux. They may be flat mountain tops or they may be flat areas of land between mountains like the altiplanos in the Andes.
4. Rivers start in mountains, and run downhill until reaching the sea.

TASK 2 **Work in pairs.**

1. Choose one of the words on the mountain which you have **not** coloured in and write a sentence containing this word. If you don't know what it means look it up in a dictionary or encyclopaedia.
2. After you have done this take your sentence around the other groups until you find the group who has this word coloured in. Ask them to read your sentence. If they think it is a good sentence colour in the word on **your** mountain.
3. Other pairs will "visit" you with sentences they have written using your key words. If you like their sentences they can colour in the word on their mountain sheet. If not tell them the meaning of the word and ask them to go back and write another sentence.



9B MOUNTAIN BUILDING

INTERESTING FACTS ABOUT MOUNTAINS GEOLOGY GROUP

TASK 1 **At the bottom of the page you have a mountain with words on it.**

Read the four sentences below and find the key "mountain" word in each sentence and then colour in that word on **your** mountain.

1. A volcano is formed when molten rock from inside the earth rises into the crust and pushes its way up through it. When a volcano erupts the molten rock called lava flows out and ash and bits of rock are thrown up in the eruption. Some bits of rock can be the size of lorries.
2. Geologists are scientists that study rocks and can tell a great deal about the history and formation of the Earth from the rocks.
3. The Earth's crust is thick under the continents - up to 70 km, but it is quite thin under the oceans - 6 km or less.
4. Movement of the earth's crust sometimes causes the earth to move, to quake and shake, this is an earthquake.

TASK 2 **Work in pairs.**

1. Choose one of the words on the mountain which you have **not** coloured in and write a sentence containing this word. If you don't know what it means look it up in a dictionary or encyclopaedia.
2. After you have done this take your sentence around the other groups until you find the group who has this word coloured in. Ask them to read your sentence. If they think it is a good sentence colour in the word on **your** mountain.
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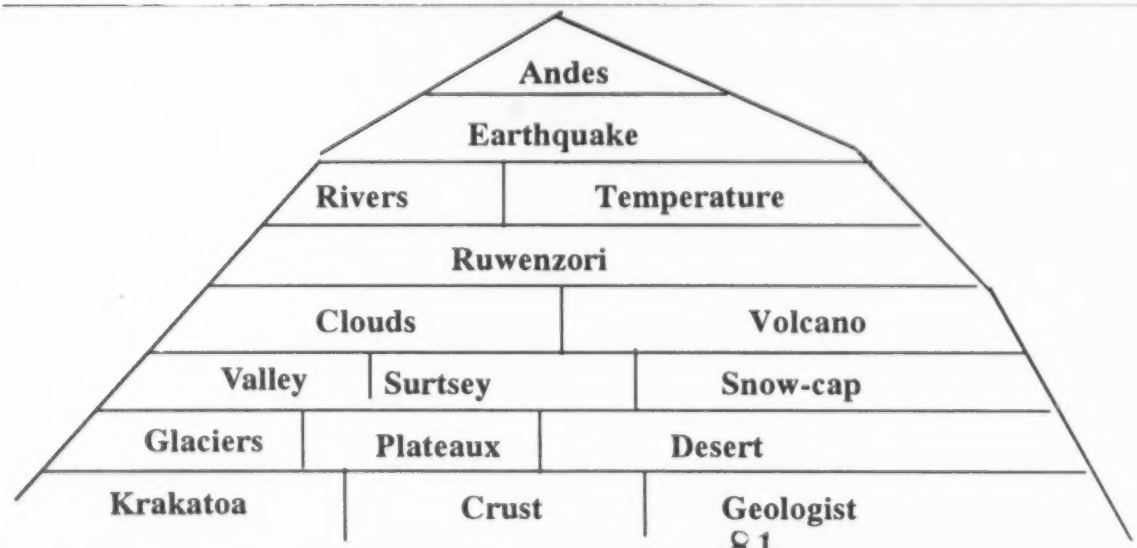


MOUNTAIN BUILDING

INTERESTING FACTS ABOUT MOUNTAINS PLACES GROUP

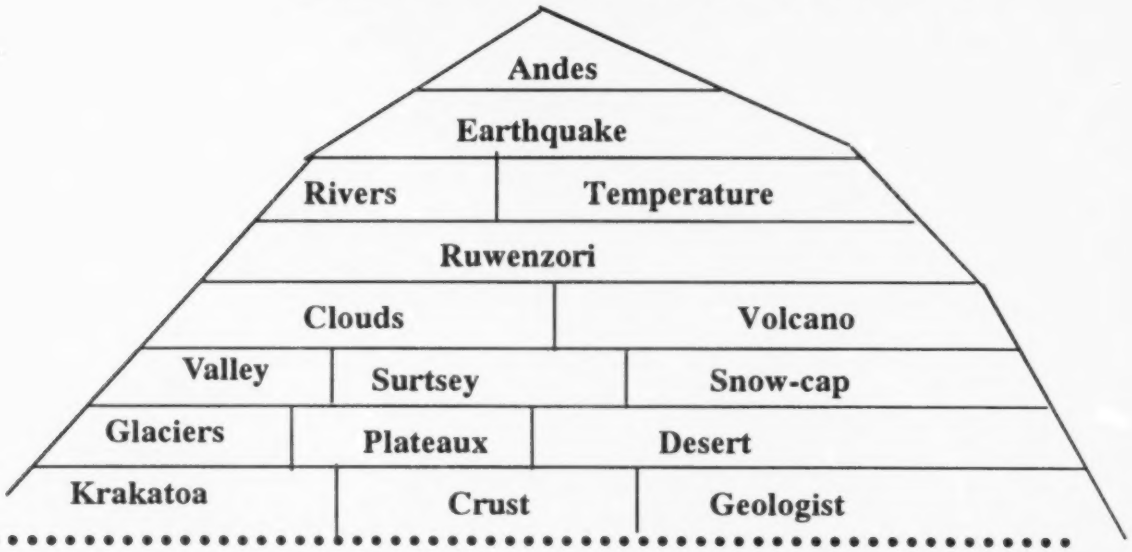
TASK 1 **At the bottom of the page you have a mountain with words on it.**

Read the four sentences below and find the key "mountain" word in each sentence and then colour in that word on your mountain.

1. The Andes form the longest mountain chain in the world. They run the whole length of the western side of South America, 5,120 km which is 3,200 miles
2. The Ruwenzori range in Uganda in East Africa are block mountains. "Ruwenzori" means "the rain maker", because like all mountains they affect the weather around them.
3. A famous eruption happened in Indonesia in 1883. A volcano called Krakatoa blew itself apart.
4. Iceland has the newest volcano on it called Surtsey, it erupted for the first time in 1963.

TASK 2 **Work in pairs.**

1. Choose one of the words on the mountain which you have **not** coloured in and write a sentence containing this word. If you don't know what it means look it up in a dictionary or encyclopaedia.
2. After you have done this take your sentence around the other groups until you find the group who has this word coloured in. Ask them to read your sentence. If they think it is a good sentence colour in the word on **your** mountain.
3. Other pairs will "visit" you with sentences they have written using your key words. If you like their sentences they can colour in the word on their mountain sheet. If not tell them the meaning of the word and ask them to go back and write another sentence.



9D MOUNTAIN BUILDING

INTERESTING FACTS ABOUT MOUNTAINS CLIMATE GROUP

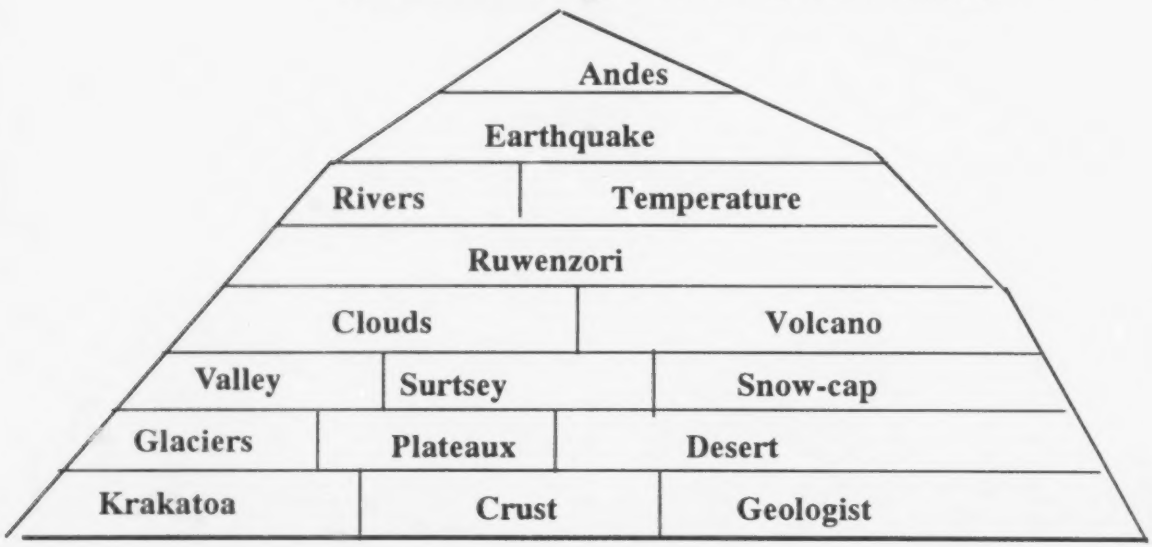
TASK 1 **At the bottom of the page you have a mountain with words on it.**

Read the four sentences below and find the key "mountain" word in each sentence and then colour in that word on **your** mountain.

1. As you go up a mountain the weather changes. The temperature drops by 1°C for each 100 metres you climb.
2. There is always a snow-cap on the top of high mountains which never melts.
3. Clouds collect at the tops of mountains.
4. A desert is a place where where virtually no rain falls and very little vegetation grows.

TASK 2 **Work in pairs.**

1. Choose one of the words on the mountain which you have **not** coloured in and write a sentence containing this word. If you don't know what it means look it up in a dictionary or encyclopaedia.
2. After you have done this take your sentence around the other groups until you find the group who has this word coloured in. Ask them to read your sentence. If they think it is a good sentence colour in the word on **your** mountain.
3. Other pairs will "visit" you with sentences they have written using your key words. If you like their sentences they can colour in the word on their mountain sheet. If not tell them the meaning of the word and ask them to go back and write another sentence.



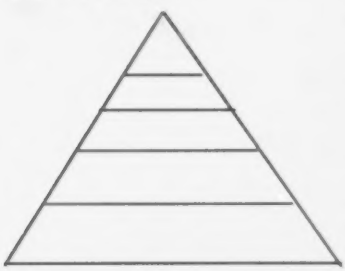
Section 2

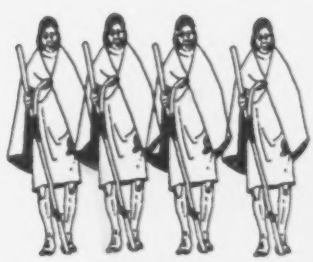
History
The Incas
The Spanish

10A INCA SOCIETY

This is a simulation about the people of the Inca Empire

The people were organised in a way which looked very like a triangle.





Before you begin, read this information about the Incas.

The Incas were a family who lived eight hundred years ago in South America. This family first settled in Cuzco sometime in the 12th century. Between 1100 and 1450 they set up the Inca Empire, one of the most famous empires in the world. The Empire stretched 2000 miles from Equador, Columbia, through Peru and Bolivia into Chile and Argentina.

Look those countries up in an Atlas.

The Incas became so powerful because of their army, which was well trained and well organised. They marched through South America conquering people wherever they went. The defeated people became part of the Inca Empire. By 1450 there were six million people from 100 different groups speaking 20 different languages living as part of the Empire.

Once they had been conquered people had to learn Quechua (pronounced "ketchwa"), the language spoken by the Inca family. They had to worship Inca Gods and work for the Empire. The Inca state was very strict, there were three commandments: "Don't lie, don't steal, don't be lazy".

In the Inca Empire people were told exactly what to do. No-one, except the nobles, could even travel without permission of the government.

Read the information about the society and then draw a triangle divided into five like this one and write the names of the different groups who lived in INCA society in the right places.

At the top of the triangle was the **Emperor,** he was the Sun-King, and owned everything, all the land, all the gold and silver and the people. His word was law and he had complete power over everyone. If anyone disobeyed the Emperor they were disobeying God.

At the bottom of the triangle were most of the people.

All the **peasants** had to work for the state, they had to pay a tax called a mita. There was no money at that time so the tax was paid by working for the Emperor in the fields, or serving in the army or by building roads, houses and storehouses.

Next in importance after the Emperor were the **noblemen, army officers and priests.** Most of them were relatives of the Emperor and very rich. They rode in litters, wore fine clothes and gold ear plugs. They paid no taxes and received gifts of wives, servants, land and llamas from the Emperor.

Below the nobles were the **curacas,** local officials who governed the people all over the Empire. Their wealth depended on how many people they controlled. They were often the chiefs of people the Incas had defeated.

Above the peasants were the skilled **craftsmen and craftswomen**. This included weavers, potters and goldsmiths, architects and stonemasons who worked on large public buildings. These people were very important to the emperor: they built his palaces, wove his clothes and made beautiful things in gold and silver.

10B LIVING IN INCA TIMES

THE EMPEROR

You are the Emperor of the Incas, you are descended from the sun god.
You are the son of the Sun on Earth and your word is law. You are very rich. You have many wives and lots of children. You will choose your favourite son to become Emperor after you are dead. Your clothes are especially made for you by the women of the temple. Sometimes you only wear your clothes once. You are constantly travelling through your empire, carried on a fine litter. Your people have built fine rest houses throughout the empire for you to stay in when you are travelling. You have lots of craftsmen who make gold and silver dishes for you to eat off. When you die the priest will remove your internal organs, dry your body and wrap it in layers and layers of cloth and a gold face mask is fixed on. This is known as a mummy.
Begin the game by collecting 5 privilege cards.

A NOBLEMAN

You are a relative of the emperor and very rich. You have lots of privileges and are allowed to wear fine clothes and gold ear plugs. You ride in litters carried by peasants. You don't have to pay taxes and the emperor gives you gifts of wives, servants, land and llamas. You live in a fine house and sometimes travel with the emperor across the empire. You have lots of wives and your children will grow up to become nobles too. Beneath you are a second group of nobles, the curacas. They look after local affairs and make sure the people keep the law. If they don't they can punish them by having them thrown off a cliff or else stoned or clubbed to death. These people are very important, as they make sure law and order is kept.
Begin the game by collecting 4 privilege cards.

A CHOSEN WOMAN

When you were ten you were chosen from your village to be taken to one of the special houses in the large cities to be trained in weaving and religion and in how to run a house. Here you learn how to weave cloth for the emperor from vicuna wool, how to make beer from maize and everything about running a household. After you have finished your four-year training you may be chosen to be a wife of the emperor, or the emperor may give you as a wife to one of his nobles. If not you will be sent to work in a temple as a Virgin of the Sun. Here you will take part in religious ceremonies and help the priests. You will never marry but devote your life to the sun god.
Begin the game by collecting 2 privilege cards.

10C LIVING IN INCA TIMES

A SOLDIER

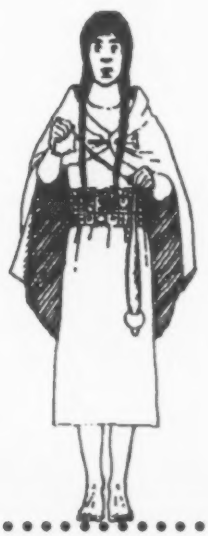
You are a soldier in the Emperor's army. You have been called away from your land to serve two years in the army. You are trained to fight with slings, clubs, battle axes and swords. You are constantly on the move to make sure everything in the empire is going well. There are 10,000 miles of roads in the empire and amazing bridges and causeways which cross rivers and marshes. Even ravines can be crossed by suspension bridges made of twisted fibres and vines, some up to 200 feet long. You are kept well supplied with food and medicines which are kept in special storehouses along the roads. When you go into battle you have trumpets, drums and flutes to accompany you. If one of the soldiers kills an enemy he makes his teeth into a necklace, his shinbones into a flute and his skull into a drinking cup to show what a great warrior he is.

A PRIEST

You are a relative of the Emperor and very rich. You have a lot of privileges and are allowed to wear fine clothes and gold ear plugs. You look after sacred objects, hold religious ceremonies, make sacrifices and work out messages from the Gods. You are in charge of the temple in your town. The people come to you when they have to confess to doing something wrong. You have to please the gods by making sacrifices of maize and vegetables, birds, guinea pigs, llamas and chicha (a beer made out of maize). You are also a doctor and help cure the sick. You make medicines from plants and are an excellent surgeon.

Begin the game by collecting 3 privilege cards.

A CRAFTSWOMAN



You are a craftswoman in the empire and therefore a government servant. You don't have to work in the fields but everything you make belongs to the Emperor and is sent to his storehouses. You are a weaver and make cloth from wool and cotton. Llama wool is woven into blankets, alpaca wool is used to make clothes and the wool from the vicuna is used to make the finest clothes for the Emperor and nobles.

The alpacas and llamas are domesticated but the vicuna run wild and have to be hunted, shorn and then let go. You spin, weave and dye the cloth with dyes from plants and minerals. You love to weave elaborate and colourful patterns into the cloth. Other craftsmen include potters and metalworkers. They use gold and silver, platinum and copper to make jewellery, models of llamas and face masks for mummies. The metalworkers also know how to make bronze by mixing copper and tin: this is used to make tips for the digging sticks used for ploughing and for the ends of spears and battle axes.

Begin the game by collecting 1 privilege card.

10D LIVING IN INCA TIMES

A STONEMASON OR BUILDER

I am a very skilled craftsman. I cut and shape stone blocks to fit together perfectly, from these blocks buildings are made. Some stones have ten sides or more. Inca buildings are designed by an architect.

Temples and the houses of the Emperor and nobles are the finest buildings in the land. Some of the stones used are enormous, some weigh up to 100 tonnes. The peasants houses are not built from stone, they live in adobe houses, made from mud bricks. I live in the town in a simple stone house.

I also build roads. Roads are very important in this very mountainous countryside. Soldiers, supplies and messages need to travel swiftly along them. The roads are cobbled, that means the surface is covered by stone, and my work is to make sure that the stone surface is fairly smooth and even. The walls on the road sides are also my responsibility. The stones must fit together tightly so that the wall is safe and will last a long, long time. Most rocks just have their surfaces smoothed, but sometimes I cut designs into temple walls. The rock is very hard volcanic rock and this can take a long time. My tools are very simple and made from wood, stone and bronze.

A PEASANT

You live with about 60 other people in an ayllu. An ayllu is a group of families who live together in a village or town and work together in the fields. You grow maize and potatoes and different kinds of vegetables. You graze llama and alpaca on the high mountains, but you are not allowed to own more than ten. You rarely eat meat except ducks and guinea pigs, usually at a festival. All land is owned by the Emperor and is divided into three: the first part is for the gods and provides food for priests and sacrifices. The second part is for the Emperor and provides food to feed the nobles, the army, craftsmen and the old and needy (if there is a bad harvest food from the storehouses is given out to everyone). The third part is land for you to grow food for yourself and your family.

You have to pay a tax to the Emperor. It is called a mita. This is not paid in money but in labour in the fields of the gods and the Emperor. Men till the land with a foot plough and women plant and weed the crops. The women cook in the open air, clay pots are used on a fire which burns Llama dung. Women also make chicha, a beer made from maize and weave cloth to make the family's clothes.

Men have to serve in the army for part of their lives, they help build roads and public buildings. Young men are chosen to be runners for the empire. Relay runners are stationed along a road and they wait in a shelter until a messenger arrives with a package or message which is then taken to the next relay station, the runner running as fast as he can.

10E ROLES CHECKLIST

	EMPEROR	CRAFTSWOMAN	STONEMASON	SOLDIER	CHOSEN WOMAN	PEASANT	PRIEST	NOBLEMAN	
Weaves cloth									
Uses tools of stone & wood									
Makes beer from maize									
Fights with slings									
Trained in religion									
Eats off gold dishes									
Lives in simple stone house									
Mummified after death									
Wears gold ear plugs									
Graze llama and alpaca									
Rides in litters									
Plants and weeds the crops									
Government servant									
Uses llama dung for fuel									
Makes clothes									
Stays in fine rest houses									
Can't leave the village									
Grows maize and potatoes									
Doesn't pay taxes									
Holds religious ceremonies									
Pays the mita tax									
Makes medicines from plants									
Always on the move in Empire									
Is very rich									
Cuts and shapes stone									
Chosen to be a noble's wife									
Use enemy skulls for cups									
Rarely eats meat									
Uses a foot plough									
Makes all the laws									

12A THE SPANISH ARE COMING

TO BE READ BY THE TEACHER FIRST

The war between the sons of Inca Huayna Capac Huascar and Atahualpa is over. Atahualpa has arrived in Cusco and murdered Huascar and all his family including his 80 children. Atahualpa is now supreme ruler but the war between the two brothers has left the Incas very weak.

MESSAGE 1

Message for the new Emperor: creatures have arrived from the sea, half men and half animal. Their top half is like a man and the bottom like a huge deer as high as the rooftops.

MESSAGE 2

An Inca soldier killed one of the new creatures by cutting off the head of the giant deer. A man stood up from the fallen deer and killed the soldier with his sword. They are not one creature as we first thought but men who ride on giant deer.

MESSAGE 3

The men from the sea are white as if made of lime, they have yellow hair, although some have black hair and long beards. Their bodies are completely covered and only their faces can be seen.

MESSAGE 4

People are saying the white man who leads the others is Viracocha, the white God, who disappeared in Lake Titicaca and who, legend says, will return from the sea.

MESSAGE 4A

The Emperor, Atahualpa is coming to meet the strangers and ask them what they want. He will meet them in Cajamarca.

MESSAGE 5

Rumours are spreading that the strangers from the sea are Gods returned to punish us. They have magic weapons which make loud sounds and fill the air with smoke. Fire comes from these weapons which strike us down dead.

MESSAGE 6

Hundreds of Inca soldiers are being terrified as these giant deer charge at them making thunder with their hooves creating great clouds of dust. Everywhere they go, the strangers demand gold.

MESSAGE 7

Terrible news - strangers have brought huge weapons from their ships which send stone balls of fire into groups of soldiers causing terrible injuries - blowing off arms and legs and making holes in the bodies of the soldiers.
The noise is like thunder and stuns the ears of all who hear it.

MESSAGE 8 - More news of killings. The strangers are galloping across the country on their giant deer killing thousands with their fire weapons - they must have magic powers. The Gods must be very angry with us.
ACTION: If your post is before Cajamarca move on to Cajamarca away from the strangers.

MESSAGE 9

A terrible massacre. On 16th November 1532 our Emperor Atahualpa entered Cajamarca where the strangers lay in wait for him. They attacked the soldiers, killing 700 of them and took Athualpa prisoner.
They are demanding gold for his release.

MESSAGE 9B

Gold and silver is being gathered from all four corners of the empire, gold statues of birds, animals and utensils. We are stripping the gold from the temples and sending it to Cajamarca.

MESSAGE 10

The strangers are holding Inca Atahualpa and demand gold and silver before they release him. Everything made of gold and silver is to be brought to Cajamarca where the Emperor is held prisoner.

12B THE SPANISH ARE COMING

MESSAGE 11

These men wear clothes which our arrows cannot pierce; stones just bounce off - they cannot be defeated. Things are getting worse but at least the gold has started to arrive.

MESSAGE 12

The men from the sea are making huge fires and melting down all the gold and turning it into gold bars. They take the gold back to the sea and load it on their ships. They are mad for gold and will do anything, kill anyone to get it.

MESSAGE 13

Three rooms have been filled with gold and silver to secure the release of Emperor Atahualpa. Today there was a bad omen, the sun disappeared from the sky. Everyone is afraid this is a sign from the sun that he is angry with his son Atahualpa. There is weeping and great fear everywhere.

MESSAGE 14

Terrible news - our Emperor has been strangled by the strangers and his head cut off.
Everywhere people are fleeing from the coast into the mountains to escape the strangers. It is vital that the relay runners stay at their posts.

MESSAGE 15

Things get worse and worse, people are falling ill with a terrible disease, a burning fever which is followed by the flesh falling off their bodies. They soon die in terrible agony. This must be a punishment from the gods.

MESSAGE 16

Yet more news of terrible illnesses. Our people are dying and those recovering are left weak and vulnerable and unable to work.
Yet the strangers are hard task masters and force us to work. They are taking over the land as well as taking all our gold and silver and making us work for them.

MESSAGE 17

More strangers are arriving and destroying our temples. They want us to worship their god and abandon ours. If we refuse they torture and kill us. There are tortured and dead bodies everywhere.

MESSAGE 18

The only way to please these strangers is with gold. When we bring gold they lift it up with expressions of joy - they yearn and crave for gold like hungry swine.

MESSAGE 19

There are dead bodies and dying people everywhere. Those that are not sick are tortured by the strangers to make them accept their God, it they refuse they are killed. These strangers behave like mad men possessed by gold fever.
ACTION: Those runners before Huaylas move on to Huaylas and stay there. Do not return to your station or you will die.

MESSAGE 20

The strangers have marched to Huaylas, then to Atabillos, Tarama and into Bombon. They are resting in Jauja at the moment. People are afraid they are going to settle there.

MESSAGE 20C

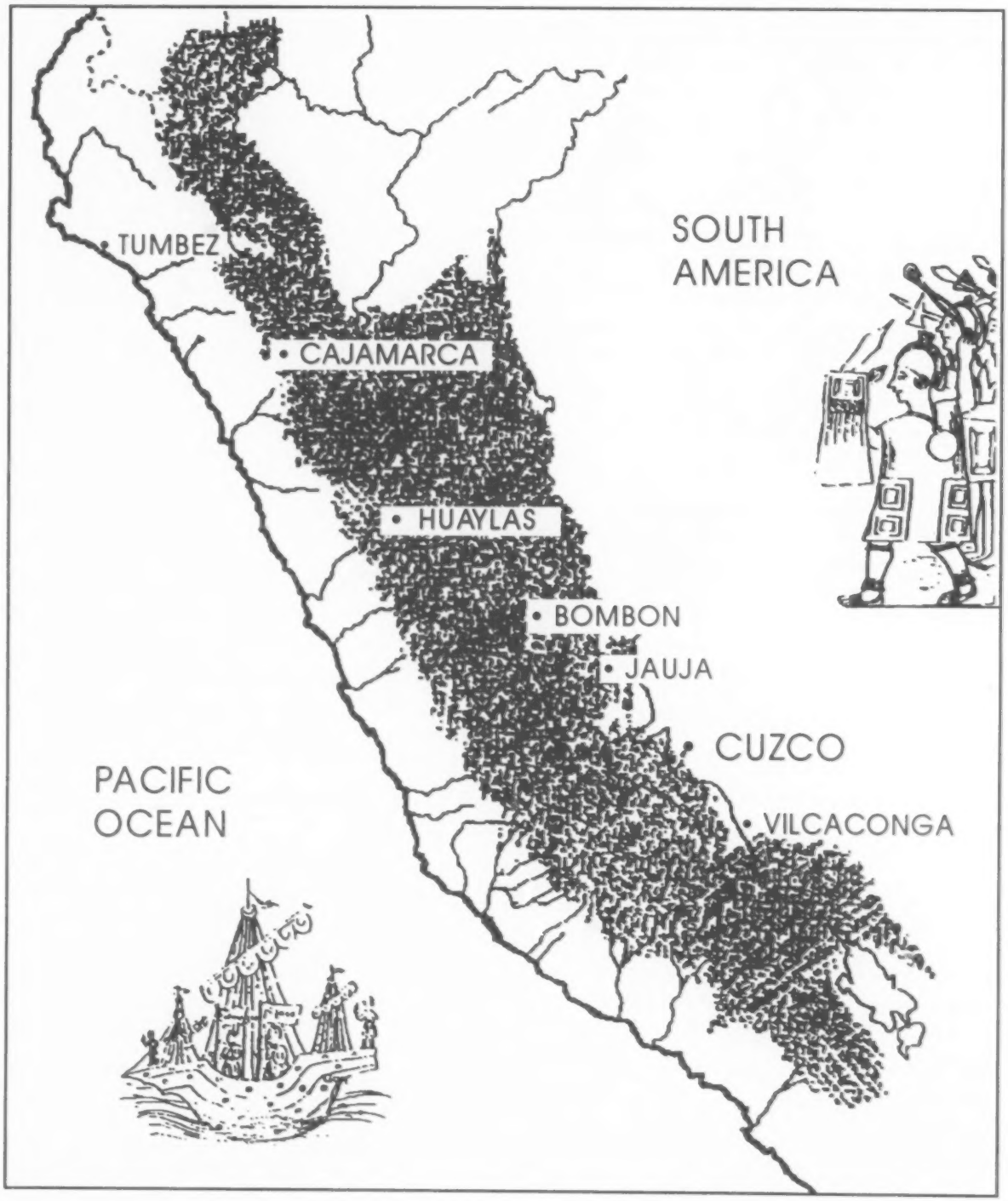
There is famine for the first time and thousands are dying from strange diseases. Only those who have escaped to the high mountains are free from the strangers.

MESSAGE 21

Flee, flee, the strangers have marched to the slope of Vilcaconga and are advancing to Cuzco.

MESSAGE 22

This may be the last message to get through, everyone is fleeing from the terrible diseases brought by the strangers. Flee to the mountains, the strangers can't breathe properly up there. Our system of messages is breaking down, we are in chaos. What will become of us?


TUMBEZ
SOUTH AMERICA
• CAJAMARCA
• HUAYLAS
• BOMBON
• JAUJA
CUZCO
PACIFIC OCEAN
• VILCACONGA

13A BEFORE & AFTER THE SPANISH

Nobody goes hungry, everyone is taken care of, the old, the sick and the children.	All peasants have to do mita. This is a labour tax and means we have to work on the lands of the Emperor and the gods before we work on our own land.
Food is stored carefully to make sure there is always enough for everyone is case of a bad harvest.	We have thousands of miles of roads and a wonderful system of communication which links all parts of the empire. Relay runners take messages from one end of the empire to another.
We worship Inti the sun-god and his son on Earth, the Emperor. There are lots of other gods who look after us.	We do not have writing, instead we use a quipa, (pronounced kee-poo). This is a complicated system using coloured string to give messages.
The land is divided between the Emperor, the gods and the people.	We have priests who are also doctors, they know a lot about using plants for medicine and can cure most illnesses.
Everyone has land to grow food for themselves and their families.	Gold and silver is used to decorate our temples and special ornaments are made to please the gods.
There is no money, the Inca Emperor makes sure everyone has food, a house and a job.	We have advanced medicine and great surgeons who can perform operations.
There are nobles and priests who have special privleges, they don't have to do the mita, a labour tax.	We can even grow food on the steep and rocky mountains by using terracing and clever irrigation systems.
The nobles have very fine houses to live in and lots of gold. They are allowed to travel wherever they like without permission.	People starve, the land is used to grow crops to feed the rich in the towns and to send to other countries.

13B BEFORE AND AFTER THE SPANISH

There are no storehouses for food so in times of bad harvest people starve.	We have to work in the mines but conditions are so bad that those sent to work there are usually dead in four years.
We are made to worship the Christian god. If we refuse we are tortured or put to death.	We are treated like slaves, we are bought and sold and made to work very hard for only a little food. We are dying from this hard work.
Those who can't work because they are too old or sick are left to die. The government doesn't care about them.	If we get so sick that we can't work any more, we are thrown onto the streets to beg.
The land is controlled by the foreigners who make us work like slaves for just a little food. So many of us work in the mines there is no-one left to run the farms.We have to pay taxes in food.	By 1581, fifty six years after the Spanish arrived, one third of our people are dead, either killed by the invaders or from over work and new diseases.
We have to work on the land to grow food to give to the foreigners,there is little left for ourselves.	Sheep have been brought to our country. They trample over the terracing in the mountains and make it difficult to grow food properly.
Many illnesses kill us including smallpox, tetanus, typhus, leprosy and yellow fever.	Our best land is taken to grow new crops like wheat to make flour which is used to make bread. Much of the wheat is sent back to Spain while our people starve.
Gold and silver is taken from our country and sent to Spain to make the Spanish king and nobles rich and to help Spain fight its wars in Europe.	Our farming system using terracing and irrigation is breaking down because the new people don't understand it and don't care if people starve.
Our land is ruled by the King of Spain. He has given control of the land, mines and people to the Spanish colonisers.	Land which used to grow so much food is turning to desert because these newcomers don't know how to farm properly.

13C BEFORE AND AFTER THE SPANISH

Work in groups of four.

TASK 1

You will be given a set of cards.
Shuffle them and deal them out between you.
take it in turns to read them.
Divide them into piles like this:-

PILE A

LIFE IN THE ANDES
BEFORE
THE SPANISH ARRIVED

PILE B

LIFE IN THE ANDES
AFTER
THE SPANISH ARRIVED

TASK 2

Read through the cards in PILE B again and make a list of all the ways in which life changed for the people of the Inca Empire under Spanish rule.

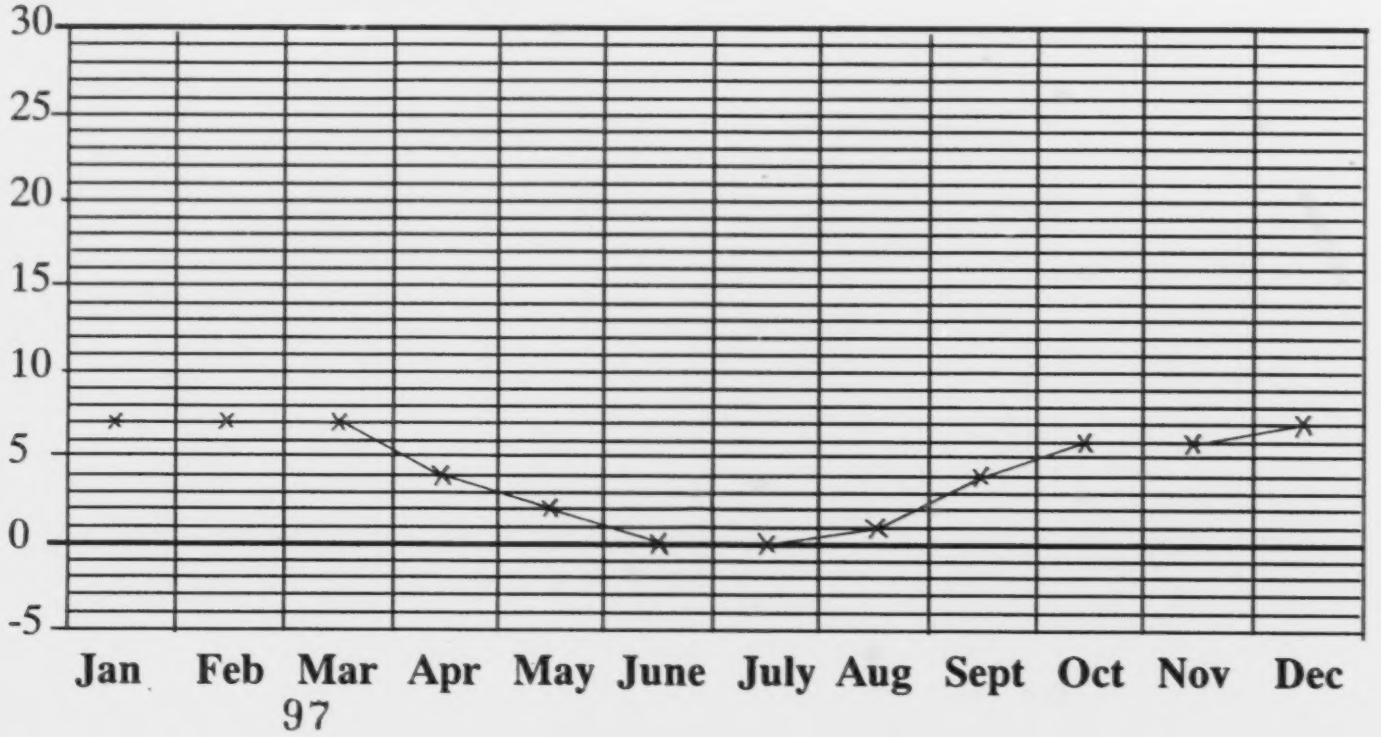
Section 3

Peru today
Temperatures
Animals
Rainfall
Farming
The lure of the city
The Quincentennial

16A

TEMPERATURE CHART

Cuzco average night time temperatures



97

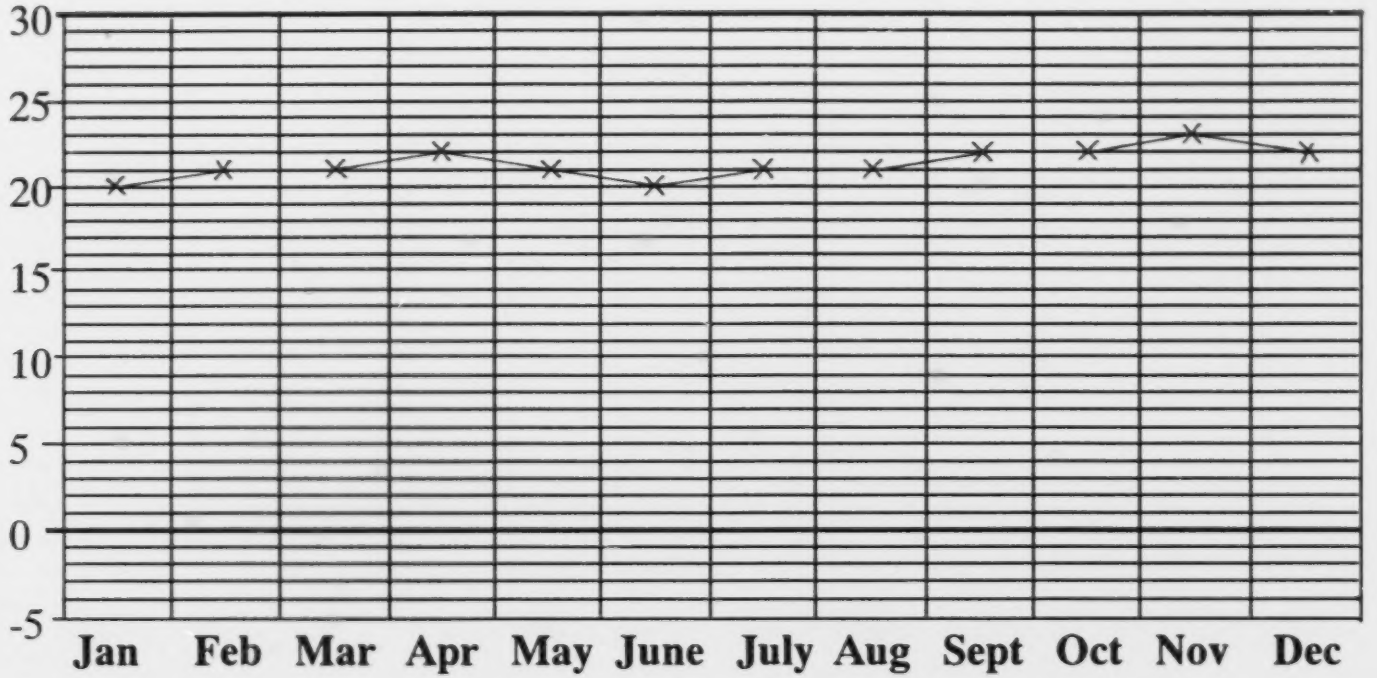
	DAY	NIGHT
Jan		
Feb		
Mar		
Apr		
May		
June		
July		
Aug		
Sept		
Oct		
Nov		
Dec		

98

16B

TEMPERATURE CHART

Cuzco average day time temperatures



	DAY	NIGHT
Jan		
Feb		
Mar		
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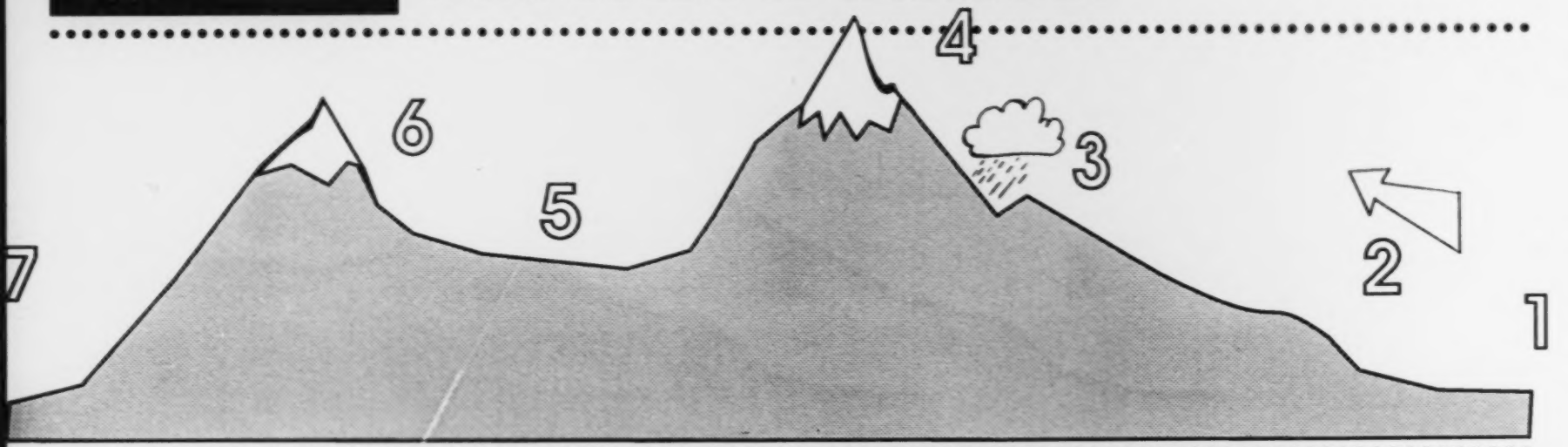
Dec		

99

100

17 RAIN CYCLE OF THE ANDES



Task 1

Read the story below which tells you about the journey of the clouds and the rain. Draw lines between each number on the diagram as you travel with the clouds on their journey.

1. Winds blow from the east towards the Andes, and clouds begin to form.
2. The air rises when it gets to the mountains, and as it rises it becomes cooler. The cooler air becomes full of moisture, tiny droplets of water join together to form rain clouds.
3. These rain clouds "bump" into the lower mountain peaks and it rains a great deal. The clouds also collect rain from the forests here, they are called cloud forests or jungle.
4. Clouds rise higher and higher up the mountains and "bump" into the peaks. The moisture falls as rain or snow.
5. Some clouds pass over the high peaks and travel over the altiplano (the high plain); a very little amount of rain falls here in the wet seasons.
6. The thin clouds that are left behind begin to sink down the western side of the mountains, and as they sink they become warmer and drier. There is almost no rain here, it is the area known as the rain shadow.
7. By now there are no clouds and the land is desert because it hardly ever rains here. There are rivers which run down from the mountains to the sea, and only around these can plants grow.

Task 2

There are seven labels below.
Write labels like these onto your diagram in the correct places. - match them up to the numbers 1-7

RAIN SHADOW, ALMOST NO RAINFALL

CLOUD FOREST, IT RAINS HERE EVERY DAY

DESERT

SOME RAIN IN THE WET SEASON

SOME RAINFALL, WHICH MAY FALL AS SNOW ON THE PEAKS

WINDS TRAVEL FROM EAST TO WEST

CLOUDS RISE ON REACHING THE MOUNTAINS

18 VEGETATION ZONES

Below is a description of the Andes mountains and what the people can grow there.
There are six levels, one level can grow lots of different types of food and one can't grow anything at all, the others are in between.
Read the descriptions carefully, and on the diagram which shows the height of the six growing zones, write down and draw what foods grow at each level.

To graze animals or grow food you need soil, water and sunshine. The higher up the mountain you go the colder it gets, so less food can be grown. Once you get to 6,000 metres above sea level there is no soil, only rocks and there is snow all the year round so nothing will grow at all.

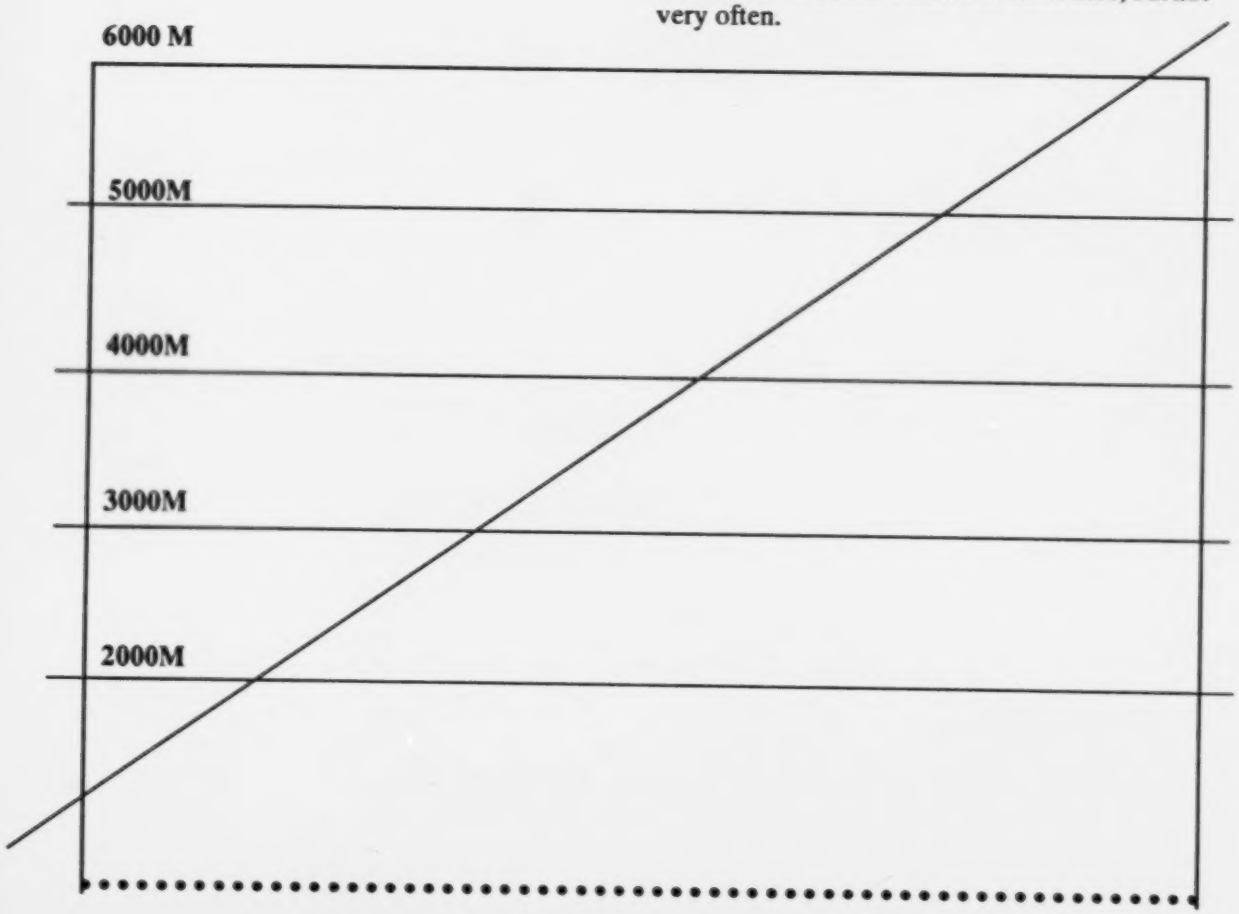
At the bottom of the mountain up to 1,000 metres above sea level, you can grow lots of crops because the soil is fertile and there is lots of sunshine. Water from the rivers is used to irrigate the crops. At this level you can grow tropical crops: oranges, coffee, cotton, rice, sugar cane and lots of vegetables.

Above the tropical zone it is much cooler but there are no frosts. It is good for growing maize, wheat, barley, peas and beans.

Some crops like potatoes can survive cold, frosty nights. Above 4,000 metres there are frosts eight days out of ten, so the only crop grown here is potatoes.

Above 5,000 metres the soil is very thin, it is very cold and there are frosts everyday. A very coarse grass is all that will grow here and this is used as pasture for llamas, alpaca and sheep.

In the remaining zone, you can grow a mixture of potatoes and some cereal like barley, also vegetables such as beans. There are frosts here, but not very often.



19A

THE WILDLIFE OF THE ANDES

Work in pairs

Read this sheet which tells you about the wildlife of the Andes.
After you have read it, fill in the chart and write down:

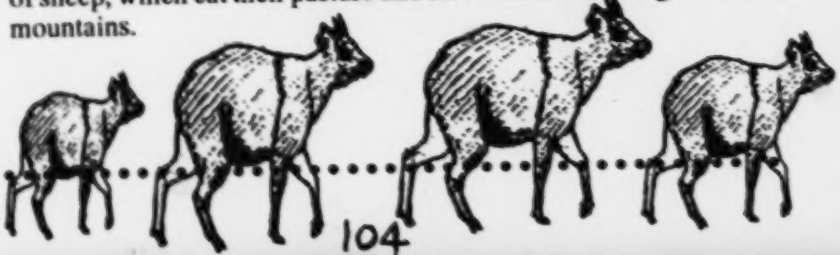
1. **How each animal is adapted to life in the mountains;**
2. **What food each animal eats;**
3. **Why the animal is threatened.**

High in the Andes, the climate is harsh and not much grows for animals to eat.
Rodents are well adapted to mountain habitats; the Chinchilla and Vischaca are rodents and live in groups called colonies, they feed on mosses, lichens and grasses. They have a special type of fur to keep them warm during the cold weather, especially the bitterly cold nights. These small animals make their homes in underground burrows, and so protect themselves from the cold winds. They can survive up to 6,000 metres. Many Chinchilla have been killed for their fur to make fur coats for rich people, so now they are protected.

The Andean Condor, a type of vulture, is the second biggest bird in the world. It can fly over the highest peaks. Its wingspan is up to 3 metres and it can weigh 13.5 kilos - how much do you weigh? The condor can cover huge areas of land in a very short time, which is why it can live so successfully on these bleak mountain tops. With its keen eyesight and sense of smell it searches for its main food which is the dead bodies of other animals and birds; this is called carrion. It also kills and eats small deer and birds. The condor is threatened because its habitat is being destroyed by humans.

There are deer living in the mountains, the pudu pudu and the guermal are the two types of native deer. They are small and can climb up to 5,000m, feeding mainly on leaves, lichen and mosses. During the summer they usually live near the tree-line where there is more food for them. Red deer and fallow deer are being introduced from Europe, and they are taking over the habitat of the native deer forcing them to live higher up the mountains.

An unusual group of animals from the camel family live in the Andes. You won't find these animals anywhere else in the world. They are the llama, alpaca, vicuna and guanaco and are well adapted to the environment. Their feet have flexible elastic pads which move and help them get a grip on the rugged mountains. As the animals climb higher, the air is thinner and there is less oxygen, but llamas are adapted by having extra red blood cells, which carry the oxygen around their bodies. Their coarse wool keeps them warm in the freezing night temperatures; the people of the Andes use this wool to make their clothes. These animals are threatened by the introduction of sheep, which eat their pasture and force them to live higher in the mountains.



19B

THE WILDLIFE OF THE ANDES

	ADAPTATION	FOOD	THREATS

20A FARMING ON THE ALTIPLANO

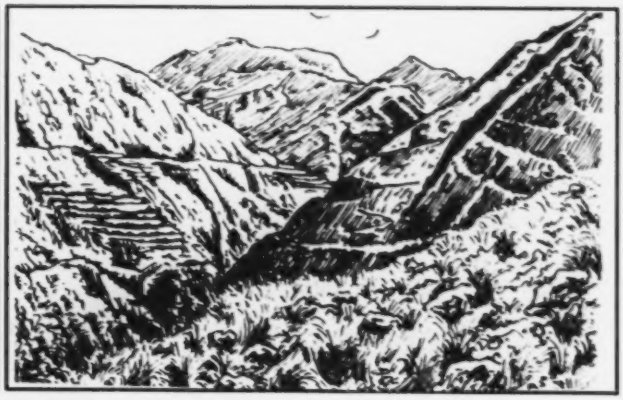
Oscar lives in the mountains of Peru, 3,800 metres above sea level where they grow mainly potatoes, barley and some beans. In this activity we are going to find out what needs to be done to grow potatoes.

Cut out the **FARMING PARAGRAPHS** below, which describe what happens during the farming year, and match them to the **FARMING PICTURES** which you will be given.

When you have done that, cut out the pictures as well, and put them in a sensible order to show the **whole** farming year.

The land is ploughed to prepare it for planting the potatoes. This is always done by the men in March, after the rains, so that the ground is soft. They use a digging stick with a metal tip and usually work in groups of three. Two men dig up the earth and the third turns the earth to make furrows.	In the dry season, from May to September, the farmers have to divert water from the streams running down the mountains to irrigate the fields. The men dig a canal above the field, and build a dam to direct the water along the canal so it can trickle down and water the fields.
Six months after the land is ploughed, in September, the women and children plant the potatoes. The men make holes with their digging sticks, and the women drop the seed potatoes in. The children throw animal dung as fertiliser on top.	The harvest takes place in June and is the happiest time of the year. The whole family join in. It is important to bring the crop of potatoes in quickly before the first frosts in July. They take their llamas to the fields to load up with the potatoes.
It is very important during the rainy season, from October to April, to keep the potatoes free from weeds. This is the job of the women and children. Every day they go to the fields and weed them.	The family have several fields and they use a system of farming called rotation. This means that the fields are divided up so once every four years a field is left fallow. This means nothing is grown on it so it can recover its fertility.

20B FARMING ON THE ALTIPLANO



21A RUEBEN

My name is Rueben and I live with my family and seventy five other families in Cuchoquesera. We are a very close community and earn our living by growing our own food and keeping sheep. Each family living here has a plot of land to farm, and together we all own the mountain pastures where we graze our animals. We grow mainly potatoes for ourselves to eat and barley which we sell to the towns to be made into beer. In our community we have built a school, a church, a community hall and a shop.

Every day I get up at four o'clock in the morning to go to the fields. In March after the rains we plough the land. I use a digging stick, it is a very skilled job and takes years to learn to do it properly. I teach my sons how to plough, especially Pedro, who will take over the farm one day. In September the potatoes are planted and everyone helps to harvest them in June. My wife and children look after the plants by weeding them throughout the rainy season from December to May.

During the first rainy season there is plenty of water for the fields, but in the dry season the men dig irrigation channels to divert the streams which flow down from the mountains to water the land.

Our sheep are very important, we use the wool to make our clothes and eat the meat. Recently the community built a sheep dip where we dip the sheep to protect them from diseases, this means our sheep live longer and give better meat and wool. We also have llamas which we use to carry loads and my wife makes clothes from their wool.

I built my house myself, using mud to make bricks and grass to thatch the roofs. The thatch must be renewed about every five years. Usually several of my friends will come to help me re-thatch the roof and I will help them when their's need doing. Our houses are called adobes, our village community is called an ayllu.

Sometimes I leave the village and go to work in the town for a few months during the rainy season between November and February. My wife looks after the fields and I get work to earn extra money to buy things we can't produce ourselves and to pay school fees for my three sons. They will have to get jobs because there is not enough land to divide between all three of them.

It is important to look after your family, but just as important is to look after the community. There are lots of jobs we all do together: building the church, the school, the shop and the community centre. If anyone doesn't turn up to do these community jobs, they are made to pay a fine or to give up one of their animals. People work together for about eight days a month. It's a lot of fun working together because we can work, sing and talk at the same time.

21B TERESA

I live in Cuchoquesera with my husband and five children. My three eldest boys live in the town for part of the year, where they go to secondary school. They come home at the busiest time of the year to help with ploughing and bringing in the harvest.

My youngest boy and daughter help me with my work. We have a lot of work to do. Like other women I cook the meals, work in the fields and weave skirts, shawls and ponchos for my family. My youngest son and daughter help by collecting water and firewood. They also look after the sheep and llamas and take them up into the high hills to graze.

My husband and elder sons plough the fields using a chaqquitaclla (a digging-stick with a foot rest and an iron blade). I then plant the seed potatoes, it is the women's job to do this. Throughout the rainy season I weed the growing potatoes to stop them getting choked by weeds. At harvest time, in June, we all go to the fields to bring in the potatoes quickly before the frosts come in July. We take our llamas with us and pack the potatoes onto their backs. Next we have to preserve the potatoes to feed us throughout the year. We leave the potatoes outside in little piles for five days in the hot sun during the day and the freezing air during the night. Then we step on them with our bare feet, to get rid of the skin and press out any water. When they are ready, we leave them in the sun for five more days to dry out completely. It's called chuno, it is black, and sometimes keeps for two years! When we want to eat it, we have to add water and cook the potato for a long time to make it soft again. I cook on a big pot over an open fire. I usually use firewood for cooking but sometimes I use dried animal dung. I cook soups made from potatoes and barley and sometimes beans. I get up every day at 3 o'clock to prepare soup for my husband before he leaves for the fields.

We take our surplus potatoes to the market. Only women sell produce in the market, we all sit on the ground and put our produce in front of us. I take my potatoes, while others have vegetables, fruit and herbs. Often my potatoes are bought by a merchant, who takes them on his truck to one of the big cities in Peru, and sells them to the people who live there.

During the day I spin wool from the sheep and llamas and dye it bright colours. Then I weave it into cloth and make trousers, skirts, ponchos and all sort of belts for my family. I teach my sons and daughters how to spin so when they are looking after the sheep they have something to do. I wash our clothes in the stream.

I make special clothes for everyone to wear on fiesta days, when the whole community gets together to play music, dance and sing and have a good time.

21C OSCAR

My name is Oscar, I am fourteen years old. I live in the mountains in Cuchoquesera with my mother and father, brothers and sisters. I love my life in the mountains but I probably won't be able to stay here. Not all of us can stay in the mountains because the land can't support us. My youngest brother will take over the land from my father, the rest of us will have to find work in the town, or perhaps marry a girl who has land, that way we could stay in the mountains.

When I was eleven I had to leave my village and go to the secondary school in the town to join my two older brothers. It takes five to six hours to travel to the town by lorry. When I arrived it was awful because I couldn't speak Spanish. In the mountains we speak Quechua and at first it was very hard. Now I have learnt Spanish and I hope to get a job as a driver when I'm older.

During the planting season between September and December I return home to help my father in the fields. Although I probably won't stay in the mountains I would like to learn how to plough. It is a very skilled job; we plough using a digging stick with a metal tip. At the moment I just watch my father dig up the earth which I turn with my hands to make furrows. When the land is ploughed my mother and sister plant the potatoes. My father makes a hole in the ground with his digging stick and my mother drops the seed potato in. My sister throws animal dung on top as fertiliser. After the potatoes and barley are planted I go back to the town and return again for the harvest in June. It is important to get a good crop so we have enough to feed ourselves, keep seed potatoes for next year and sell some to get money to pay school fees and buy things we need which we can't produce ourselves: clothes, candles, matches and luxuries like a transistor radio.

I have my sheep which I sell and I spin the wool to make yarn which is woven into cloth and made into clothes. When I am at school I wear clothes like the town people but when I am in the mountains I wear my traditional clothes, my poncho, hat and scarf which keeps me warm when I have to go up to the pasture lands with my sheep. It takes twelve hours to walk from one end of the pasture to the other. At night I herd my sheep into a pen and sleep in a small grass shelter so I can protect the animals from thieves or foxes which might kill the sheep. I like to take the sheep up into the hilliest parts because it is as if I can see the whole world from up there. It is bitterly cold at night and I get frightened all alone so I take my radio for company.

MARIA

I am six, which means I have to start working in the house. Up to now I've been able to play and do what I like all day. My elder brother, Pedro and I have lots of jobs to do, we help my mother collect wood for cooking and we collect water from the streams. I have been given one lamb which I must look after, and I help look after our other animals. We have llamas which we use to carry things, they are called pack animals. I am also learning how to milk them and spin their wool into yarn to make cloth for our clothes.

My mother is teaching me how to spin. Soon I will start learning how to weave the yarn into cloth. I am learning how to cook so that by the time I'm ten I will be really good and know everything about managing the household.

When I'm twelve I shall help my mother in the fields. We follow the men and after my father has made a hole with his digging stick, my mother plants the seed potatoes. My job will be to cover them with animal dung to help them grow well. When the rains come, we weed the fields so that the potatoes can grow well. The best time of the year is in June when all the family goes to harvest the potatoes, and then I go with my mother to the market to sell the ones we don't need for ourselves. We pack up the potatoes on our llamas and walk down the rough, steep path to the road where a lorry meets us and takes us to the town, it takes about five to six hours to get there.

The most exciting times of the year are the fiestas. My father and uncles make wonderful music with drums and pipes they have made themselves and we kill a sheep to eat. There are seventy five families living here, and everyone joins in the singing and celebrations. I help my mother prepare food for everyone to share.

When I'm fourteen I shall go and work in the town. I'll probably get a job as a servant for one of the rich people. I'll be able to buy town clothes and perhaps a radio of my own, as well as sending money home to help my family. I shall probably return home for fiestas. I have just started school now and I am beginning to learn Spanish. I have to speak Spanish if I am to work in the town because nobody there speaks our language, Quechua.

21E PEDRO

I am nearly ten years old, and the youngest son of my family. When I am twelve I will be able to take on the work of a man. Since I was five I have helped my mother and sisters by collecting water and firewood. Sometimes my mother asks me to run errands and help look after my younger sisters.

The most important job I do is look after the sheep and the llamas. I look after the family's sheep and I also have sheep of my own. I got my first sheep when I was eight, it was a present from my mother and now I have ten. I take them up into the mountains to graze. At night I herd them into a pen and I sleep in a small grass shelter built in the hills nearby and guard them from thieves and wild animals. Once I saw a condor take a baby lamb up to his nest at the top of the mountain.

I helped my father build an extension to our house. We made bricks out of mud using a wooden frame, then left them in the sun to dry. The rafters for the roof of the house were made from wood from trees we cut ourselves. Then I helped my sister Maria collect bunches of grass from the mountains to thatch the roof. Our houses are called adobes. I also help plant more eucalyptus trees so we have more firewood and wood for building.

When I am twelve, I shall go to the fields with my father and uncles and learn how to farm. Because I am the youngest son I will take over the farm from my father so it is important for me to learn the difficult job of ploughing. We grow potatoes, barley and some beans, it is too cold for anything else to grow. In June we harvest the potatoes and carry them back home on the backs of our llamas. We always pray for a good crop so we'll have enough food to feed ourselves, keep seed potatoes for next year and take some to the market to sell.

I love going to market, it's great fun, we pack the produce on our llamas and go down to the road where we meet a lorry which takes us on the long journey to the town. My mother sits in the market square and lays out the potatoes ready to sell. My father takes the barley and sells it to the brewery to make into beer. I love market day.

21F WHOSE JOB?

JOBS CHECKLIST	WOMAN	MAN	BOY	GIRL
Weeding				
Ploughing				
Harvesting				
Irrigating				
Tending animals				
Collecting water				
Collecting firewood				
Cooking				
Selling at market				
Looking after children				
Guarding sheep				
Spinning				
Weaving				
Making chuno				
Playing drums				
Working in town				
Planting potatoes				
Making mud-bricks				
Putting dung on fields				
Collecting thatching				
Thatching roofs				
Enjoying fiestas				
Making ponchos				
Washing clothes				
Dyeing the wool				
Goes to school				
Milks the llamas				
Learning Spanish				

24A THE LURE OF THE CITY

Work in groups of four.

TASK 1

Read the following:

Throughout the altiplano in Peru, the people are leaving their villages and moving into the capital city of Lima.
This activity will help you find out why they are doing this.

Shuffle the cards and deal them out between you.
Take it in turns to read the cards and place them on one of the piles below.

Pile 1 cards are reasons why the people are being **forced to leave** their villages - these reasons are called **PUSH** cards.

Pile 2 cards are reasons why the people are being **attracted to** the city, these reasons are called **PULL** cards.

PILE 1 PUSH CARDS	PILE 2 PULL CARDS

TASK 2

You will be given a sheet on which six people describe their lives in Lima.
Read what they have to say and make a list of the **different jobs** that they do.
Make another list of the **benefits of living in the city** and another of the **difficulties they face.**

Do you think they are happier in the city or were they happier in the village?

Write a paragraph to explain what you think.

PUSH PULL CARDS

There has been no rain for two years and the potato harvest has failed again.	There isn't enough land here for all our children; some will have to leave for the city to try and find work.	The drought has meant the harvest is bad, because of this we don't have enough to eat and many of the children are ill because they don't have enough to eat.
If we move to the city we will get secondary schooling for our children and they will have more chance of getting a job.	The land here is becoming more eroded, it is difficult to grow as much food as we used to.	The climate seems to be changing around here. We've always had droughts but never for this long and this badly. Some say its because they are cutting down the rainforest in Amazonia.
There are more hospitals and medical care in Lima; when we are sick we have no doctor in the village.	With the drought there is little water in the village, it is impossible to survive without water.	I'm fed-up with the hard life of weaving, spinning and making the family's clothes, I'd rather buy clothes in the market, but to do this I have to have money.
There are more jobs in the city and a more modern way of life.	It is very difficult to sell our crops in the market even when we have a good harvest because the government imports food from other countries and sells it cheaply.	I think this area is declining very fast, in the city my children can get a good education and then a job. It's more than I can offer them here. I want to move to give my children a good start.
If we live in the city and get jobs we can buy things that we want like transistor radios.	We need money to buy the things we want. We cannot produce enough in the mountains to sell in the market so we can buy things.	We used to be able to grow enough barley and potatoes to sell and buy the things we need, now there is barely enough to feed the village.

24C LIFE IN LIMA

Every year 100,000 Peruvians move to the capital city of Lima.
In 1955 Lima had a population of 1 million, today it has a population of 4 million. Many of the people who have moved there have come from the Andes mountains.
Has the city brought them a better life?

Read the stories of some of the people who have arrived in Lima and see what has happened to them.

"I am a washerwoman. Usually I have work two days a week, sometimes four. I work for a doctor's family and an architect's family. They have a lot of servants. The doctor's wife doesn's work, she's always out for walks and with her friends. They have a lot of money. What I earn is barely enough to keep me and my seven children alive".

"Everyday I go to the city and queue up with lots of other men hoping I will get some casual work. Some days I am lucky and get a job unloading a lorry load of potatoes brought in from the village markets. This gives me a little money to buy food for my family, but most days I don't get work at all and we go hungry".

"I live in a hut I made myself from bits of wood and corrugated cardboard. I have lived here for eight years. I thought we could build a proper house here, but it's impossible. There are no jobs so what I do is go to the market in Lima and buy a sack of sweet potatoes and then sit in the market by the road and sell them. I have to support myself and my children on the little money I earn but I can't afford to buy school uniform or exercise books so my children can't go to school."

"I clean a big house for a rich woman. She's good to me and lets me eat as much as I want but she doesn't pay me much. I have to buy on credit and sometimes my bill in the shop at the end of the month takes my whole wages. I buy the children shoes on credit so they can go to school. It's a very hard life but I have never thought of going back to my village. At least here there is some work, you can eat and have a little money. Back home if the harvest is bad, you starve. There's hardly anyone living in my village now."

"I have no-one to look after my children when I go to work so I just have to lock them in. Two of them have had accidents in the house and the hospital bills took all the money I was saving to build a house. There is no medical help for anyone unless you can pay."

"I spend my days going to the different building sites in Lima hoping to get some casual work. Some days I get work mixing cement, other days I carry the breeze blocks for the builder, but most days I don't get any work. There's always so many of us hoping to get a little work and they pay us very little. But what else can I do, I have no qualifications and I have to earn money somehow to feed my family."

25 THE QUINCENTENNIAL

In 1992, the governments of some European countries and those of North and South America are planning to celebrate the arrival of Columbus in the Americas. The indigenous people (descendants of the original people) of South America feel very angry about this. They have got together and made this statement about how they feel.

INDIGENOUS DECLARATION **AGAINST** THE CELEBRATION OF THE FIFTH CENTENARY OF THE DISCOVERY OF AMERICA

We, indigenous people of 22 nationalities in 15 countries of Latin America, declare our total rejection of these celebrations for the following reasons:

1 There was no **discovery** of the Americas as some have said, it was an **invasion** which led to the following;

- death by bloody violence of more than 75 million of our brothers and sisters.
- the violent take-over of our land,
- the destruction of our culture and way of life,
- the replacement of our own religions with the Catholic church.

2 The invasion meant that our basic human rights were, and still are being taken away.

3 In the past and today, the Catholic Church and other churches have forced our people to believe in their religion.

Faced with these facts, which have taken place over 500 years, we demand:

- An end to the destruction of our cultures.
- That we have legal rights to the land which is ours and always has been and which was taken away from us by the invaders.
- Recognition and respect for our right to ownership of the natural resources which belong to our land, both on the ground and below the ground. Governments should not sell more of our resources to national and international companies.
- Recognition of our organisations and our right to self-government

ACTIVITY

Imagine it is October 12th 1992, the 500th anniversary of the arrival of Columbus in the Americas. You are going to write an article for a Peruvian newspaper.

Divide into 2 groups.

The first group should pretend to be journalists and plan the questions they want to ask people about the anniversary. The second group should pretend to be different people in Peru, maybe Oscar's family, or people from Activity 24. When both groups have finished their planning the *journalists* should *interview* the people. In groups of both journalists and ordinary people write a newspaper article about the celebration, based on the interviews and what you have found out from the rest of the pack.